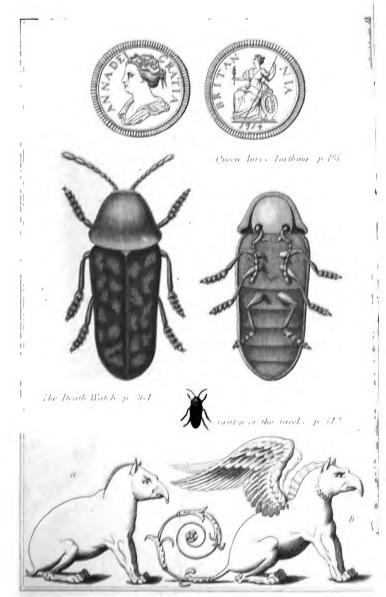
3 3433 00100122 5

Presented by Mrs. Henry R. Hoyt, New York Public Library





POPILIN ERRORS

# POPULAR ERRORS

## EXPLAINED AND ILLUSTRATED.

## BY JOHN TIMBS, F.S.A.

AUTHOR OF "CURTORITIES OF LONDON," "TRINGS NOT GENERALLY KNOWN,"

A Common Error is the greater and more mischievous for being so common.

CLARBEDON.



NEW EDITION.

LONDON:
DAVID BOGUE, FLEET STREET.
1856.



We must not receive the opinions of our forefathers, as do mere infants, for the simple reason that our parents held them.—Mancus Augentus.

Man favours wonders .- Long Barns

Error is but a deception. In presuming that somewhat is past or to come; of which, though it were not past, or not to come, yet there was no impossibility discoverable.... Houses.

Few practical Errors in the world are embraced upon the stock of conviction.—Socra:

There is nothing stronge in Errors becoming universal, considering how little men consult their reason.—HAYLE.

Correct opinions, well established on any subject, are the best preservatives against the seductions of Stror.—Bisson Mass.

All ages have been so fertile in Errors and projudices, that no one cars now have the advantage of priority:—Asseo,

It is always more gratifying to get rid of an Error in science than to introduce into it an additional observation,—Georgeov St. Hillare.

There is a wonderful vigour of constitution in a popular fallacy.

## PREFACE.

FEW of the plans which have of late years been devised for the spread of knowledge, have specifically aimed at the object of the present volume: "to take us from the track of our nursery mistakes, and, by showing us new objects, or old ones in new lights, to reform our judgments."\* Locke defines Error to be "a mistake of our judgment, giving assent to that which is not true;"—and the illustration of these words is the main purpose of the "POPULAR ERRORS."

Expositions of Error, or works exclusively devoted to that purpose, are not so rare in olden as in modern literature. About one hundred and ninety years since. SIR THOMAS BROWNE, a man of extensive learning and research, published a volume of Enquiries into Vulgar and Common Errors, which enjoys high reputation to the present day. This work may be said to have first suggested the "POPULAR ERRORS;" though, while the Author has been stimulated by the zeal of BROWNE, he has not imitated his disinclination to admit new positions. Neither has he followed the celebrated author of the Religio Medici, "the philosopher of Norwich," in his elaborate study of books, or in his fondness for the embellishments of classic story and quotation, such as might be expected from a physician of the seventeenth century. To errors long since exploded, the Author of the present volume has been content to refer as the antiquities, or "curiosities," of his design, since his object has been to explain the errors of his own day; indeed, to catch them living as they rise. Moreover, he

<sup>\*</sup> Sterne.

has striven to make his expositions of practical utility in the business of every-day life. He does not instruct the reader how "to tell the clock by algebra," nor "to drink tea by stratagem;" though he aims at being accurate and agreeable, by way of abstract and anecdote, so as to become an advantageous and amusing guest at any intellectual fireside. In some instances, to borrow from Sin Thomas Buowse, he may be fair "to wander in the untravelled parts of truth;" and, therefore, he may sometimes meet "the Goliath and giant of authority." Possibly, some few of his " Errors" may be, at first sight, considered of scarcely sufficient importance to receive such correction as they here receive ; but, it should be remembered, that " nothing is to be considered as a triffe by which the mind is inured to eaution, foresight, and circumspection."\*

By means of condensation—the result of thought—which rejects what no longer appears necessary, the reader is here presented with expositions of no fewer than Seven Honner Popular Educate, presenting, it is hoped, as many agreeable accessions of novelty, and sources of rational curiosity, and amusing research.

A glance at the Table of Contents will prepare the reader for the variety of this volume; and a copious Index will enable him to refer readily to any especial subject treated of in its pages.

1. T.

\* Johnson.

Graf's Inn, Murch, 1841.

<sup>• \*</sup> In the majority of instances, the Authorities are given. Had the author been disposed to make a panels of his research, the list of books he has consisted would occupy some pages. In the present Work is of Ien Years' growth.

## CONTENTS.

## I. ERRORS RESPECTING THE ECONOMY OF MAN.

Page Longevity-Stature of Man-Exaggeration of ancient statues

Evidence of health-growing fat -Temperature of aged persons -Exposure to the sun-Healthiness of London-Salubrity of the sea coast-Climate of Madeira-Hours of rest-Night studies —Nature of hair—Insensibility of the brain—Benefits of sensi-bility—Skin-deep wounds—The term "nervous"—Feet of Chinese females-Causes of left-handedness-Art of walking-"Stopping the teeth"-Perfection of the eye-Near-sightedness -Choice of spectacles-Inoculation for the small-pox-Warm and cold bathing—Recovery from drowning—Antipathies— Medical books—Bitters and tonics—Charcoal tooth powder— Gin for worms—Walking in wet clothes—A damp bed—Quarantine—Prussic acid—Danger from copper saucepans—Poisoning by arseuic—" Good for man and beast"—Lunatics—What is madness?—Religious madness—Ridicule of hypochondriaes— Cure of hypochondriasis—Hydrophobia—Nature of sleep— Sleeping with the eyes open-Prevention of sleep-Sound sleep -Morning dreams-Traces of dreams-Causes of trance-Sleepwalking-Nature of death-The fear of death-"The lightness before death "- Sufferings of the death-bed-Death by lightning -Uncertain signs of death-Death not pain-Is the fear of death natural to man !- Causes of drowning, &c.

## IL ERRORS RESPECTING THE PROPERTIES OF FOOD.

Dietetics - Gourmandism and epicurism-Nourishment in food-Animal v. vegetable food- Rule of eating—False appetite— Imaginary thirst—Warmth from spirits—"The bilious"—Errors of cookery-Roast and boiled meats - Animal food for children -Plain dinners-Soup from bones- Turtle Soup-Potatoes as food-Prejudices against fish-Consumption of fish-Out-of-season fish-Whitebalt Shell-fish-" Green oysters"-Mussels -Putridity of meat—Charcoal and tainted meat—Loss of meat in cooking-Banstead mutton-Dorking fowls-Stilton cheese-Boiling eggs—Strasburg pies—Black game—Salt in butter— Growth of wheat—Nourishment in bread—Alum in bread—Potatoes in bread-Patna rice-Nourishment in rice -Water in large towns-Snow water-Spurious soda-water-Thames water-Water near churchyards-Forced fruits-Names of apples- The golden pippin- Codlins-Norfolk biffins-Boiling vegetables-Mealy and waxy potatoes-Spurious water-cresses-Sage—the Jerusalem articheke—Edible mushrooms—Plants in rooms—Odour of flowers-Melting snow with salt-Sugar and the teeth- Economy in sugar - Antiquity of tea-Localities of the tea-plant-Adulteration of teas-Quality of tea-Fine teas in China Con-

							+	oge.
Brangalina est la	LEE THE ATTL	grissass	1 this	the 4d ha	in - of him as	utter"	wary"	
· " I HENLY W	oller"	$10$ $\mu$	1314 611	The distri	KILL & ALLIN	cyttuc	A JUNEU.	
animaling in the								
Time the strategicted	\$34440W	الواليرقيانية	ANTHON	reppe	- 50)	31 0111	MANCH	40
house," be.		•	,		, ,			304

# III. ERRORE RESPECTING DOMESTIC ARTS AND MANUFACTURES.

Breating. High dried malt Art of browing Thomas water for brewing Sait in beer Bitters in parter Healing of parter -Buter and perry. Write making The vineyard The vine may-rished by bood. Franciple of wine. Benet to it make and sparts Tuesta in winese distribute of many bluewayang wine distincted wines defaul in wines which country countries of Post with Pale and durk shours be martined by an interior burying among the thin of French wines " hard and inegrote Frotoning homopogue Ithanish wines "Imperial Trong" Generales of Indiana Baseland West India Moderia Baskera and the good, Fasters of Carne withen trustment but other beatings therein with ministry. Bullitte. Byun vilus Egizila at wine Emuggled windley Palo affirite Brandy in preserving lighting and Harting boung a-Empley Rum gas incides their more volunted than gold the Incidence of British con bands. Waste of code the ly " Bearing the he would seem a consequent " " " instruct Weight will minimise Warming buildings that in commeys Heating by you -Building out the life I in bur entirepresenting the tree strong the tre free the water boat? Coast from used bright stores bleam from the bettie Blace tea pole Expension of from Kinny towns the proof tests keeptental burning glasses "Full to the trans took they commended thing -Warmth of white customy blacks warmer that thursels -Idual lives while hats. Immedia Henrita, its. Assissing variable The result of peater water Britainia metal definite enter a Epirious giving Cottery Roser and hot votes Antogorty of town and of larger Musical gloss from voteres. Presents thints and Stones Secondard pool develors gold beauty of the open Supports Inc. toby and the distributed Fig. 13 Properties of the dismand Properties of the damand Prices of dismands. What six position of Borver Inter and quinterchal brief Cetting Warnett of the "Borver Inter" "Whiteform." Beginning best has bankson Positioning dyes Matthe from chatics. Burd in Survenissing French places. Colores for dress Trude and Commerce Commerce in fant with present times. Principles of increasing. Effects of incontinual time. Head on the increasing by invaluncty. French and English instruments offices. Officeasing to life. Building the file knowling magazine Charling and Land & A A A A Cha halo route Printelly of thicks tileand which as Expland lands Agreeles de Asserbet engine harty Minnesset sintante of khariston -Acquired the guardens, whi.

## IV. BEBORS RESPECTING DOMESTIC MANNERS, Rea.

The antique The study of antiquities The foodel system. The sumptions less Behelits of monetories Disting in notional times. Best enters: The reactique of the Region of Selegion castles. "Up with the sum". The current Ancient value of 87

money-Portraits on coins-Queen Anne's farthings-Error halfpence-Light guineas-Holidays and trade-Obsolete holidays-National errors-Loyalty of British saliors and soldiers-"Jews' oranges "-Suicides in November-English and French suicides-Absurdities in medicine-Imaginative cures-Curemongering quacks-Cats and valerian-Weight of the human body before dinner and after—Rationale of cookery—Dining alone—Reading after meals—"Thirteen to dinner'—Old almanacs - Political prophecies - Parsimony and eco.omy - Doctrines of chance - Invention of cards - Population and prosperity-Popularity of authors-Writing for the many-Common cause of failure—Obstinacy and firmness—Secret of har piness—Want of a pursuit—Effects of printing—Errors in print— Knowledge and happiness-Plurality of worlds-Reason and revelation-Religious errors-Cause and effect-Errors of the imagination-Credulity and superstition. Education,-Love of children-Benefits of education-Utility of the classics-Quotation of the dead languages-Precocious talents-What is genius? Style of writing-Public education-Arithmetic and algebra-Learning arithmetic-The "talented"-"Transpire"-"Family editions, etc. .

#### V. ERRONEOUS LAWS AND CUSTOMS.

Exemptions by marriage—Gretna Green marriages—the weddingring finger—Burial of the dead—Hight-of-way and funerals—
Burying in cross roads—Entries in Bibles—Right of gleaning—
The miller's toll—Arrest after death—Tender in payment—Common rights—Wasto lands—Unrepealed temporary laws—Contradictory penal laws—Inefficacy of capital punishments—
Death warrants—"Hangman's wages"—Who are esquires?—
Bachelors—What makes a gentleman?—The profix "Fitz"—
Poisons of the ancients—Poison in the nails—Slow poison—
Aqua tofana—Venico glasses—Arabs and the plague—The
adder-stone—Mythology of Science—Transmutation of metals
—Benefits of astrology—All astrologers not impostors—Doubtful inventions of Roger Bacon—Friar Bacon's brazen head—Sir
Walter Raleigh's El Dorado—Credulity of great minds—The
flower-de-luce—Pedlar's Acre—Vanyhall and Guy Fawkes—The
Star Chamber—Era and epoch—"Old England "—Wearing the
leek on 5t David's day—John the Baptist's locusts—Druidical
circles—The Minister—Origin of "Whig" and "Tory"—The
Goodwin Bands—Perscution of the Jews—Jew's ear—" Prince
of Wales's feathers"—The Order of the Garter—Peath of Jane
Shore—Ancient and modern Freemasons—Popular ignorance, 249

## VI. ERRORS IN VARIOUS SCIENCES.

Fallacies of first experiments—Theory and practice in mechanics
—Fall of a guinea and a feather—Perpetual-motion seekers—
Source of salt or sea water—Components of sweet and bitter—
Microscopic illusions—The barometer—Prognostics of rain—
Superior visions with one eye—Illusion of perspective—"The
thunder-bolt"—Danger from Storms—Illeight of the Patagonians—Invention of the diving bell—The orrery—False estimates of navigation—Misapplication of geometrical terms—
Subterranean world—Origin of caverns—Velocity of waterwheels
in the night—Deceptive appearance of waves

nighted by Google

310

## VII. ERRORS IN NATURAL HISTORY,

Page	ä
Pabulous animals of the ancients-Giants -The unicorn-The mer-	
maid The phoen's -Griffins - Irragona - Adam's apple The	
gorgona-Greekes " Man has one rib less than a woman"-	
Mintakes in natural history The hon Untamentale hyuma-	
The elephant White booted horses The vampire but -Low-	
gevity of the deer Wolves in England Tartarian lamb. The	
which The cannel The cut The whale not a finh The beaver	
-The hedgeling Singing birds in the old and new world-	
Bird's eggs Cheknes' spittle Disappearance of swallows in	
winter The pelican The goat sucker The nightingale Hum-	
ming hirds. The hird of paradise The haleyon. Affection of	
fishes Colours of the dolpin The John Dory Crab's eyes -	
The Gordian worm Ecla Insects forchoding death. The	
death's head moth. The death-watch. Crickets. The carwig-	
The lantern fly-The bird-killing spider-The terantule spider	
—Boon, etc. , , , , , , , , , , , , , , , , , , ,	1

## POPULAR ERRORS.

## I .- ECONOMY OF MAN.

### LONGEVITY OF AUTHORS.

BISHOP HULT observes that it is an unfounded prejudice to imagine that the pursuit of literature is injurious to health. Studious men are as long-lived, in general, as others. The literati of the French Ana were long-lived: two-thirds of them passed the age of 76; and as many of them attained the age of 90 as died under 60. Thus, St. Evremond passed the age of 90; Chevreau, that of 88; Valesius, 85; Longarue, 82; Poggio, 79; and Duchat and Ségrais, 77; Furctière died at 68, and Cardinal Perron at 62. Archbishop Sancroft died at 77. Bishop Gibson at 79; Newton, Waller, and Clement XII. passed the period of 80; and tishop Hough, Dr. Tancred Robinson, Cardinal Fleury, Sir John Maynard, and Sir Christopher Wren, exceeded the age of 90. Bishop Huet himself was a remarkable instance of health and long vity in a very studious man. Though his studies directed him to the church, he did not enter into holy orders till he was 46 years of age. He was Bishop of Avranches 14 years; and having spent the remaining twenty years of his life in devotion and study, he died in his 91st year.

#### HIGHLAND LONGEVITY.

It has often been said that examples of extreme Longevity are common in the Highlands of Scotland, and the tale has been repeated till it has almost become an axiom dangerous to doubt. A well-known and remarkable instance is often quoted from Pennant; but it is, probably, a solitary one, since other inquirers have not found similar cases, and no satisfactory evidence has been adduced to justify the general assertion. The tourist who hurries through the country may, perhaps, adopt this notion from the number of old people whom he sees in the cottages, or engaged in some sort of labour when nearly past the power of labouring. But it must be recollected that the aged and infirm continue to reside with their children when no longer able to maintain themselves, and that there is no asylum, like the wor! house or hospital of England, where these objects are concealed from the public view, and almost lost to the public recollection. Hence the aged are seen everywhere; and hence the easy but superficial conclusion, that they are in greater proportion here than in England\*.

#### STATURE OF MAN.

An erroneous notion obtains belief, that the present Stature of the Human Race is considerably less than it has been in pastages. This Error may, in part, have originated in the olden tales of men of gigantic stature, which are now almost universally discredited. At the same time, it is extremely probable that the size of the race, notwithstanding some local variations, has not sensibly diminished; and, not only from the concurrence of many kinds of proofs from historical evidence from the earliest known periods, but from considerations of science in the absence of all monuments, it may be inferred that there has been no material change since the origin of mankind.

Lancashire and Yorkshire furnish the tallest specimens of Englishmen; a sufficient answer to the notion that manufacturing industry has a general tendency to produce physical deterioration.

#### EXAGGERATION OF ANCIENT STATUES.

In specimens of Statues left us by the Ancients, we see something that always fascinates us, at the same time that we find everything exaggerated in them. The reason is thus happily explained by Mr. Abernethy:—"The ancients did exaggerate in their statues; but then there

\* See Dr. Macculloch's Description of the Western Islands of Sco.land. † Edinburgh Review.

was so much grace in their exaggeration that you did not see it, but you were fascinated: their foreheads, for instance. Look at them, and you see them coming forward - they overhang the rest of the face. You see they do not shelve away-they are broad and expanded. Animals, the brutes, have scarcely any foreheads: the monkey's forehead recedes, and the dog's forehead falls back completely. The ancients, therefore, with reason, gave a full projecting forehead to their statues, to dignify them-to mark, as it were, the striking difference there was between man and other animals. Now the cyclrow is quite peculiar to man-no other animal has it: the ancients laboured that part of the human coun enance with extraordinary care; for it is particularly adapted to convey expression. The eyes, too, they managed in the same way. Some of the inferior animals have their eyes so brought forward on the surface of their face that they can see sideways, they can see around them, and even behind them; which is the sign of a suspicious, apprehensive, anxious disposition. The ancients gave to the faces of their statues eyes that looked straightly and directly upon you-that look sternly forward; and they did this in order to convey to the beholder that the originals felt the very reverse of timidity of apprehension, and suspicion. Then the nose. Man has a peculiar one: it has a bridge in it; all other animals want the nose, as it is in Those animals, instead of a nose, have a snoutit is a snout, not a nose. Now the ancients, in their heads, attended greatly to the nose: they placed the bridge of it very high in the face; they placed it above the centre of the orbit of the eyes. The Greeks brought the nose straight down—the Romans gave it a bend upwards: they arched it, thinking that to be the bandsomest form. The nostrus they made as little live a snout as possible. In the statues of the ancients you see the mouth made in a peculiar way; it is, so to speak, as little like a devouring aperture as possible: they knew it was made for articulating for expressing thoughts by language; and they made it as expressive as they could. The lis were made muscular and strong. Brutes, we find, have no chins: that is a part of the face peculiar to men. The ancients were very particular about it, and formed it large and expressive. Now, if you could put all these features on paper, you would have the

countenance of Jupiter Olympus himself. The ancients, however, did not give the same face to all their statues; it is quite true what Dr. Spurzheim said of them, that they knew much better than to place the head of a philosopher upon the shoulders of a gladiator."

#### EVIDENCE OF HEALTH.

Perspiration is, by many persons, thought to denote health; but this notion is only, to a certain extent, correct. Dr. Gregory says, of a person in high health, the exhalation from the skin is free and constant, but without amounting to perspiration, and the repulsion of impurity is a necessary consequence. In fact, it is perspiration so active as to fly from the skin, instead of remaining upon it, or suffering anything else to remain.

#### GROWING FAT.

Notwithstanding good living, and innumerable propositions for Fattening the person, and the encouragement held forth by various remedial processes, the task still remains a difficult one; and we must even now agree with what the learned Bulmer said a century ago: "All bodies may be made lean, but it is impossible to fatten where vehement heat or dryness is by nature; for one may easily subtract from nature, but to add to nature is difficult, when virtue does not co-operate: all other creatures, if they have sufficient and proper food, will grow fat and be franked; whereas men, although they have the best aliment exhibited to them, will not, in like manner, be fat, the chief cause whereof, as to man, is imputed to his temperament."

#### TEMPERATURE OF MAN.

To the uneducated it appears no less erroneous to say, that the body is equally warm on a cold winter morning as on the most sultry of the dog days, than to affirm that the sun is stationary, contrary to the apparent evidence of the senses; yet the one is as well ascertained as the other. For example, at Ceylon, Dr. Davy found that the temperature of the native inhabitants differed only about one or two degrees from the ordinary standard in England \*.

. James Rennie.

#### TEMPERATURE OF AGED PERSONS.

Agen persons are generally thought to be more susceptible of cold than the young. The heat of human beings has, however, been proved to be very nearly the same, whatever may be their age, their temperature, their type, or the race to which they belong; and whatever may be the nature of their food, as the comparative researches of Dr. Davy prove, from the priests of Buddha, the Hindoos, eaters of rice, and the Vedas, who live entirely on animal food.

#### EXPOSURE TO THE SUN.

THERE are few points which seem less generally understood, or more clearly proved, than the fact, that Exposure to the Sun, without exercise sufficient to create free perspiration, will produce illness; and that the (same) exposure to the sun, with sufficient exercise, will not produce illness. Let any man sleep in the sun, he will awake perspiring and very ill-perhaps he will die. Let the same man dig in the sun for the same length of time, and he will perspire ten times as much, and be quite well. The fact is, that not only the direct rays of the sun, but the heat of the atmosphere produce abundance of bile, and powerful exercise alone will carry off that bile \*.

#### HEALTHINESS OF LONDON.

Considerable Error prevails respecting the salubrity of the air of our metropolis, from ignorance of the fact ascertained by Mr. Cavendish many years since—that there is no sensible difference in the constituent parts of the atmosphere, under ci-cumstances the most dissimilar. The air of London, with its half-million of blazing fires, equals in purity the freshe t breezes of the country; nor has any difference been discovered between the chemical composition of the air of a crowded room in a fever hospital and the common open atmospheric air. The mortality of London is one thing, but the mortality of its various parishes another; some of them being twice, thrice, and even four times that of others.

\* Napier's Cefalonia.

#### SALUBRITY OF THE SEA COAST.

Theres, plants, Ac. rarely flourish in the vicinity of the sea; but the cause of their decline is little understood. It is attributed to the atmosphere containing a portion of the muriates, or salts of the sea over which it has passed, and which is pernicious to vegetable life. But these properties are favourable to animal life; and it has even been maintained, that the air best adapted to vegetation is unpropitious to animal life and vice versa. It may, however, be doubted, if nature has fixed any general rule; since daily experience proves that different speces of animals—even different races of the same species—are variously affected by the same air. On this account, the salubrity of the sea-air is by no means universal, as it is commonly thought to be.

#### THE SOUTH OF PRANCE.

The benefits of this invalid-visited corner of the earth have been much overrated. Life is here very short, scarcely more than thirty years. Indeed, it appears to admit of little doubt, that the climate of the southern coast of France, deceitfully brilliant and mild, is little favourable to the human constitution.

#### CLIMATE OF MADEIRA AND THE MEDITERRANEAN.

The climate of Madeira, in its restorative effects upon invalids, has been strangely overrated. Dr Clark relates, that of thirty-five invalids who landed at Madeira within two years and a half, there were only six survivors who, so far from being cured, could only make the best of a precarious existence in a low latitude.

It should, however, be added, that the climate of Madeira is in many cases, the last resort and faint hope of the worn-out invalid. A recent traveller (Cap'ain Alexander) notes: "How painful is it to reflect on the many hundred fair forms and brave spirits who have been compelled to seek the climate of Madeira, to avert, for a time, the stroke of the fell tyrant—death! How few with renovated constitutions have been permitted to revisit their father-land! Our captain had frequently taken out passengers to Madeira—young women, adorned with every personal grace and highly cultivated minds, but on whose cheeks was painted the fatal heetic flush; and young men,

afflicted with a sepulchral cough, which told too plainly that their days were numbered and that they were shortly to repose in the shade of the myrtles of the Funchal cemetery:

 The genius of the isle that showers His germs of fruit, bis fairest flowers, Hath east his robes of vernal bloom In guardian fondness o'er their tomb.

Both Gibraltarand Malta are supposed to be very healthy, and to afford a glimpse of hope to those who suffer under Consump ion, but this conclusion, or rather impression, is oppugned in recent statistical reports. The authors state, that in the United Kingdom 6.6 per 1000 are attacked by this dreadful malady; while in Gibraliar the amount is 8-2; at Malta, 6.7; and 5.3 in the Ionian Islands. This would seem to prove, that, with the exception of the Ionian Islands, the Mediterranean is not, as is generally supposed, favourable to pulmonary complaints, but rather the reverse.

#### HOURS OF REST.

THE mind requires regular rest as well as the body, and does not so soon recover from any excess of exertion. But it is the tendency of the present state of society in England to produce unnatural exertions. Stage coach horses, and walkers against time, are not the only creatures that are worked to death in this country. Many are the labourers, (and it is the most sober and industrious upon whom the evil falls), who, by task work, or by working what are called days and quarters, prepare for themselves a premature old age: and many are the youths who, while they are studying for University honours, rise early and sit up late, have recourse to art for the purpose of keeping their jaded faculties wakeful, and irretrievably injure their health for ever, if this intemperance of study does not cost them their lives".

Archbishop Williams is said to have slept only three hours in the four-and-twenty; "so that he lived three times as long," says his biographer, "as one that lived no longer." This is a marvellous fact; for Williams was a man who employed all his waking hours, and moreover was not of the most tranquil disposition. "But," says Dr. Southey, "I believe that any one who should attempt to follow his example would severely suffer for his imprudence."

<sup>\*</sup> Southey.

#### NIGHT STUDIES.

EXTRAORDINARY wakefulness, enabling persons to study hard for days and nights without sleep, leads to a very erroneous idea of the harmlessness of this excess. Intense thought, or abstraction, has a powerful influence on the circulation; and this absence of sleep is obviously the result of excessive action of the brain, which, if not relieved, must soon run on to delirium. Extraordinary wakefulness is, therefore, the signal of nature for suspending such pursuits.

#### NATURE OF HAIR.

Hair does not, as was hitherto supposed, form an essential part of the skin. It has a principle of existence of its own; and M. F. Cuvier considers the organic system which produces hair as forming part of that of the senses; the slightest touch, even that produced by a hair of the human head, is sufficient to make certain animals, eats for example, contract their skin and make it tremble, as they always do to rid it of light bodies which stick to it; and of the presence of which they are apprised by this peculiar sense of touch.

#### THE TONGUE

Is not an indispensable organ of taste, as is commonly supposed. Blumenbach saw an adult, and in other respects a well-informed man, who was born without a tongue. He could distinguish, nevertheless, very easily the tastes of solutions of salt, sugar, and aloes, rubbed on his palate, and would express the taste of each in writing.

#### INSENSIBILITY OF THE BRAIN.

Sensibility is, in reality, very different from what is suggested by first experience. Thus, the brain is insonsible: that part of the brain which, if disturbed or diseased, takes away consciousness, is as insensible as the leather of our shoe! That the brain may be touched, or a portion of it cut off, without interrupting the patient in the sentence he is uttering, is a surprising circumstance! From this fact physiologists formerly inferred that the surgeon had not reached the more important organ of the brain. But that opinion arose from the notion prevailing that a nerve must necessarily be sensible. Whereas, when

we consider that the different parts of the nervous system have totally distinct endowments, and that there are nerves insensible to touch and incapable of giving pain, though exquisitely alive to their proper office, we have no just reason to conclude that the brain should be sensible, or exhibit a property of the nerve of the skin. Reason on it as we may, the fact is so;—the brain, through which every impression must be conveyed before it is perceived, is itself insensible. This informs us that sensibility is not a necessary attendant on the delicate texture of a living part, but that it must have an appropriate organ, and that it is an especial provision\*.

#### BENEFITS OF SENSIBILITY.

IT may appear, at first view, that our condition would have been improved had we not been endowed with the Sensibility which often renders disease so great an evil; but in the same proportion that our ease would have been consulted, our danger would have been increased. It is by the quick sensibility of our frame that we are warned of a thousand dangers, and enabled to guard against them.

### SKIN-DEEP WOUNDS,

THE extreme Sensibility of the Skin to the slightest injury conveys to every one the notion that the pain must be the more severe the deeper the wound. This is not the fact; nor would it accord with the beneficent design which shines out everywhere. The sensibility of the skin serves not only to give the sense of touch, but it is a guard upon the deeper parts; and as they cannot be reached except through the skin, and we must suffer pain therefore before they are injured, it would be superfluous to bestow sensibility upon these deeper parts. internal parts which act in the motions of the body had possessed a similar degree and kind of sensibility with the skin, so far from serving any useful purpose, this sensibility would have been a source of inconvenience and continual pain in the common exercise of the frame. The fact of the exquisite sensibility of the surface, in comparison with the deeper parts, being thus ascertained by daily experience, we cannot mistake the intention, that the skin is made a safeguard to the delicate textures which are

\* Sir Charles Bell's Bridgewater Treatise.

Dr Philip.

contained therein, by forcing us to avoid injuries: and it does afford us a more effectual defence than if our bodies were covered with the hide of the rhinoceros\*.

#### SENSIBILITY OF INFANTS.

A NOTION prevails that the young of animals are directed by instinct, but that there is an exception in regard to the human offspring; that in the child we have to trace the gradual dawn and progressive improvement of reason. This is not quite true: we doubt whether the body would ever be exercised under the influence of reason alone, and if it were not first directed by sensibilities which are in-The sensibilities and motions of the nate or instinctive. lips and tongue are perfect from the beginning; and the dread of falling is shown in the young infant long before it can have had experience of violence of any kind. The lips and tongue are first exercised; the next motion is to put the hand to the mouth in order to suck it; and no sooner are the fingers capable of grasping, than whatever they hold is carried to the mouth. Fo that the sensibility to touch in the lips and tongue, and their motions, are the first inlets to knowledge; and the use of the hand is a later acquirementt.

## THE TERM "NERVOUS."

THERE are few terms more commonly used, both in and out of the medical profession, than "Nervous:" it is a word which has acquired great numbers of significations, and many people, at the same time, profess not to understand what it means. Certainly, to speak of "being nervous," is a mode of expression which is very indefinite, from the use that is made of it; but which, if properly applied, carries to the mind a very forcible impression of a pecuhar state, for which we have no very appropriate language. Unfortunately, the same word has been long employed to express two states in direct opposition to each other; thus, we talk of strong, weighty argument, delivered with boldness and energy, and in appropriate language - as " a nervous speech," and the orator as " full of nerve;" whilst we, on the other hand, say, that the individual who delivers himself with timidity, with hesitation, and distrust of his own power, is "highly nervous;"-we regret that

his "good sense was overpowered by his nerves." In the first instance, we mean to say that there is a tension and streegth of nerve; in the latter, that there is a laxity and weakness of nerve; yet, by some strange anomaly in our mode of expressing our ideas, we apply the same adjective to both these states of the nervous system.

#### FEET OF CHINESE FEMALES.

WF read much of the smallness and beauty of the feet of Chinese women; but from the examination of a foot, and the Report of the same, by Mr. Bransby Cooper, to the Royal Society, this peculiarity amounts to deformity. Indeed, the specimen examined had all the characters of deformity consequent upon the prevalent habit of early bandaging for the purpose of checking its natural growth. He observes: - "To an unpractised eye it has more the appearance of a congenital malformation, than of being the effect of art, however long continued; and appears at first sight like a club foot, or an unreduced dislocation. From the heel to the great toe, the length of the foot measures only four inches; the great toe is bent abruptly backwards, and its extremity pointed directly upwards; while the phalanges of the other toes are doubled in beneath the sole of the foot, having scarcely any breadth across the foot where it is naturally broadest. The heel, instead of projecting backwards, descends in a straight line from the bones of the leg, and imparts a singular appearance to the foot, as if it were kept in a state of permanent extension. From the doubling in of the toes into the sole of the foot, the external edge of the foot is formed in a great measure by the extremities of the metatarsal bones; and a deep cleft or hollow appears in the sole across its whole breadth. The author gives a minute anatomical description of all these parts, p inting out the deviations from the natural conformation. He remarks that from the diminutive size of the foot, the height of the instep, the deficiency of breadth, and the density of the cellular texture, all attempts to walk with so deformed a foot must be extremely awkward; and that in order to preserve an equilibrium in an erect position, the body must necessarily be bent forwards with a painful effort, and with a very considerable exertion of muscular power."

\* Dr. Sigmond's Lectures.

#### LONG BARF.

The parts of the head which least influence the physiognomy are the Ears, which have few and weak movements. It appears that if the largest are considered least handsome, they hear farthest, and distinguish sounds with most facility. Could it be this consideration which has induced several savage nations, who are always more interested than the civilised in hearing at a distance, to adopt the strange custom, not only of piercing the ear, to hang in them rings, diamonds, or precious stones, but also to extend the lobe excessively, by piercing it, and introducing pieces of wood or metal, which are successively replaced by other pieces still larger\*?

#### THE PULSE.

The value of the indications of the Pulse is often forfeited by the slight and careless manner in which they are taken. An inference may be formed at one moment, or under one posture, which the lapse of five minutes, and change of position, will altogether belie. It is true that this is less the case in fevers and inflammatory diseases; but there are many others where the view of the disorder and method of treatment may be wholly perverted, by trusting to a single observation. All recent inquiry into the Pulse shows the need of attention to these points.

#### CAUSES OF LEFT-HANDEDNESS.

The question has been much discussed among anatomists, whether the properties of the right hand, in comparison with those of the left, depend on the course of the arteries to it. It is affirmed that the trunk of the artery going to the right arm passes off from the heart, so as to admit the blood directly and more forcibly into the small vessels of the arm. This is assigning a cause which is unequal to the effect, and presenting, altogether, too confined a view of the subject: it is a participation in the common Error of seeking in the mechanism the cause of phenomena which have a deeper source.

For the conveniences of life, and to make us prompt and

<sup>\*</sup> Lacépede.

dexterous, it is pretty evident that there ought to be no hesitation which hand is to be used, or which foot is to be put forward; nor is there, in fact, any such indecision. Is this taught, or have we this readiness given to us by It must be observed, at the same time, that there is a distinction in the whole right side of the body, and that the left side is not only the weaker, in regard to muscular strength, but also in its vital or constitutional properties. The development of the organs of action and motion is greatest upon the right side, as may at any time be ascertained by measurement, or the testimony of the tailor or shoemaker; certainly, this superiority may be said to result from the more frequent exertion of the right hand; but the peculiarity extends to the constitution also: and disease attacks the left extremities more frequently than the right. In opera-dancers, we may see that the most difficult feats are performed by the right foot. But their preparatory exercises better evince the natural weakness of the left limb, since these performers are made to give double practice to this limb, in order to avoid awkwardness in the public exhibition; for if these exercises be neglected, an ungraceful performance will be given to the right side. In walking behind a person, it is very seldom that we see an equalised motion of the body; and if we look to the left foot, we shall find that the tread is not so firm upon it, that the toe is not so much turned out as in the right, and that a greater push is made with From the peculiar form of woman, and the elasticity of her step resulting more from the motion of the ankle than of the haunches, the defect of the left foot, when it exists, is more apparent in her gait. No boy hops upon his left foot, unless he be left handed. The horseman puts his left foot in the stirrup, and springs from the right.

We think we may conclude that everything being adapted, in the conveniences of life, to the right hand—as for example, the direction of the worm of the screw, or of the cutting end of the auger—is not arbitrary, but is related to a natural endowment of the bedy. He who is left-handed is most sensible to the advantages of this adaptation, from the opening of a parlour-door to the opening of a penknife. On the whole, the preference of the right hand is not the effect of habit, but is a natural provision, and is bestowed for a very obvious purpose; and the property

does not depend on the peculiar distribution of the arteries of the arm—but the preference is given to the right foot, as well as to the right hand.

#### ART OF WALKING.

In a graceful human step, the heel is always raised before the foot is lifted from the ground, as if the foot were part of a wheel rolling forward; and the weight of the body supported by the muscles of the calf of the leg. rests for the time on the fore part of the foot and toes, is then a bending of the foot in a certain degree. where strong wooden shoes are used or any shoe so stiff that it will not yield and allow this bending of the foot, the heel is not raised at all until the whole foot rises with it; so that the muscles of the calf are scarcely used, and, in consequence, soon dwindle in size, and almos dis-Many of the English farm-servants wear heavy, appear. stiff shoes; and in London, it is a striking thing to see the drivers of country wagons, with fine robust persons in the upper part, but with legs which are fleshless spindles, producing a gait almost awkward and unmanly. brothers of these men, and who are otherwise employed, are not so mis-shapen. What a pity that, for the sake of a trifling saving, fair nature should be thus deformed! An example of this kind is seen in Paris. There, as the streets have (few or) no side pavements, and the ladies have to walk almost constant'y on tiptoe, the great action of the muscles of the calf has given a conformation of the leg and foot, to match which the Parisian belles proudly challenge all the world-not aware, probably, that it is a defect in their city to which the peculiarity of their form is in part owing t.

#### DLACK BKIN.

That the heat of the sun produces blackness of the integuments is an opinion as old as the days of Pliny. Buffor asserts that "climate may be regarded as the chief cause of the different colours of man;" and Smith is of opinion that "from the pole to the equator, we observe a gradation in the complexion nearly in proportion to the latitude of the country." Blumenbach, under the same impression, endeavours to account for this black tinge by

\* Sir Charles Bell's Bridgewater Treatise, † Dr. Arnott's Elements of Physics.



a chemical illustration somewhat curious. He states that the proximate cause of the dark colour is an abundance of carbon secreted by the skin, with hydrogen, precipitated and fixed by the contact of the atmospheric oxygen. Our Creoles, and the British inhabitants of India, may esteem themselves particularly fortunate in not being subject to this chemical operation.

It would be idle to dwell further on the hypothetical illustrations regarding this supposed operation of climate, which the observation of every unprejudiced travelier can

impugn\*.

## "STOPPING THE TEETH."

This branch of dental surgery is treated by many persons as quackery, as its results prove what theory cannot account for, viz. that the progress of the decay is sometimes thus permanently arrested. Professor Owen explains this process as follows:- "Ordinary decay of the teeth commences, in the majority of instances, immediately beneath the enamel, in the fine ramifications of the peripheral extremities of the tubes. (of which the teeth consist.) and proceeds in the direction of the main tubes; and consequently, by the most direct route to the cavity of the pulp. The soft condition of the decayed portion of a tooth is well known to all dentists: it depends upon the removal of the earthy salts from the containing tubes and cells, in which process the decay of teeth essentially consists. object of the dentist seems, therefore, to be to detect those appearances in the enamel which indicate decay; to break away the enamel where natural adhesion to the ivory will be found more or less dissolved at the decayed part; to remove the softened portion of the ivory, and fill up the cavity with gold and other substances. The calcareous salts are in such cases, as it were, poured out from the extremities of the tubes, divided in the operation, and a thin dense layer intervenes between the exposed surface of the ivory and the stopping !."

#### PERFECTION OF THE EYE.

From the time of Sir Henry Wotton to the latest writer on light, the Eye has been a subject of admiration and

> \* Dr. Millingen's Curlosities of Medical Experience. † Proceedings of the British Association, 1838.

eulogy. But this admiration is misplaced while it is given to the ball of the eye and the optic nerve exclusively; since the high endowments of this organ belong to the exercise of the whole eye, to its exterior apparatus, as much as to its humours and the proper nerve of vision. It is to the muscular apparatus, and to the conclusions which we are enabled to draw from the consciousness of muscular effort, that we owe that sense by which we become familiar with the form, magnitude, and relations of objects\*.

#### MOTION OF THE EYE.

On coming into a room, we think we see the whole side of it at once—the pictures, the cornice, the chairs: but we are deceived; being unconscious of the Motions of the Eye, and that each object is rapidly, but successively, presented to it. It is easy to show that if the eye were steady, vision would be quickly lost; that all those objects which are distinct and brilliant, are so from the motion of the eye; that they would disappear if it were otherwise. example, let us fix the eye on one point-a thing difficult to do, owing to the very disposition to motion in the eye. When we have done so, we shall find that the whole scene becomes more and more obscure, and finally vanishes. we then change the direction of the eye but ever so little. at once the whole scene will be again perfect before us, These phenomena are consequent upon the retina being subject to exhaustion, by the lights, shades, and colours of objects continuing to strike upon the same relative parts, and thus exhausting the nerve; but when the eye shifts. there is a new exercise of the nervet.

#### NEAR-SIGHTED PERSONS

COMMONLY attribute to distant objects a greater magnitude than those who have a good common sight. This Error may be explained as follows: the distinct images of objects are made on the eye only at the point of intersection of the rays of light issuing from the same point. The eye of short sight receives on the retina all those rays beyond the point of their intersection; and, consequently, at a point where they are more extended.

\* Sir Charles Bell's Bridgewater Treatise.

f 1614.

#### SEEING WITH THE FINGERS.

The credulity of the public has sometimes been imposed upon by persons who pretended to See by means of their Fingers: thus, at Liverpool, the notorious Miss M'Avoy contrived, for a long time, to persuade a great number of persons that she really possessed this miraculous power. Equally unworthy of credit are all the stories of persons, under the influence of animal magnetism, hearing sounds addressed to the pit of the stomach, and reading the pages

of a book applied to the skin over that organ.

These Errors have, doubtless, gained credence from a belief that the functions of the nerves are interchangeable, as is the case with many other functions in the animal system. On the contrary, the function of each nerve of sense is determinate, and can be executed by no other part of the nervous system. No nerve but the optic nerve, and no part of that nerve except the retina, is capable, however impressed, of giving rise to the sensation of light-that is, seeing: no part of the nervous system but the auditory nerve can convey that of sound, or hearing; and so of the rest \*.

#### CHOICE OF SPECTACLES.

Among the many vulgar Errors that are daily injuring those who cherish them, few have done more injury to the eyes than the notion that all persons of the same age require glasses of the same focus. Nothing can be more As well might the same remedies be applied indiscriminately to all diseases, provided the age of the sufferer were the same.

Sir David Browster has well observed, that "the selection of glasses for imperfect vision is a point of much deeper importance than is generally believed. An oculist who is acquainted only with the diseases of the human eye, without possessing any knowledge of it as an optical instrument, is often led professionally to recommend glasses when they ought not to be used, and to fix on focal lengths entirely unfit for the purpose to which they are applied; and the mere vender of lenses and spectacles is still more frequently in the habit of proffering his deleterious counsel."

When speciacles are properly selected, they afford the

<sup>\*</sup> See Dr. Roget's Bridgewater Treatise.

. >

greatest aid and comfort to short or long-sighted persons, and may be worn for several years without diminishing the sight, though the contrary is vulgarly imagined.

## INOCULATION FOR THE SMALL-POX.

It is not at all an uncommon thing for even well-informed people to consider one event the cause of another, because the one has immediately preceded the other in the order of time. A curious instance of this Error occurred in the last century. The fish, on which many of the inhabitants of Norway depended for subsistence, suddenly disappeared from their coasts; the practice of inoculation for the small-pox had just then been introduced, and was instantly fixed upon as the cause of the calamity; and as the people considered the risk of that disorder a trifle in comparison with starvation, nothing could exceed their righteous indignation against all who undertook to prevent their taking the small-pox.

## PROFITS OF MEDICAL ADVISERS.

It is a strange Error to consider the Profits of Medical Attendants to be uncommonly extravagant; because this great apparent profit is frequently no more than the wages of labour. The skill of an apothecary is a much nicer and more delicate matter than of any artifice whatever; and the trust which is reposed in him is of much greater import-His reward, therefore, ought to be proportionate to his skill and his trust; and it arises generally, from the But the whole drugs price at which he sells his drugs. which the best employed anothecary in a large market town will sell in a year may not, perhaps, cost him above thirty or ferty pounds. Though he should sell them, therefore, for three or four hundred, or at a thousand per cent. profit, this may often be no more than the reasonable wages of his labour, charged in the only way in which he can charge them-upon the price of his drugs.

For example, the apparent extravagance of the charge of eighteen-pence for a draught-phial of medicine is obvious to many who do not reflect that the charge is, in reality, for the payment of professional skill. The eighteen-pence may be fairly divided into two parts: four-pence for medicine

and phial, and fourteen-pence for advice.

#### WARM BATHING.

Many erroneous notions prevail respecting the uses and the propercies of the Warm Bath. To many persons, the idea of submersion in warm water on a summer's day, would appear preposterous: but if it be rationally considered, it will be found that the warm bath may be taken with equal, or perhaps greater, benefit in the summer than in the winter. During the hot weather, the secretions of the skin are much increased in quantity; and consequently, a greater necessity exists that it should be kept perfectly free from obstructions.

Another prevailing Error respecting the warm bath is, that it tends to relax and enervate the body; for experience has sufficiently proved the fallacy of the opinion, and many physicians have prescribed its use to patients labouring under debility from disease, none of whom experience such effects, but have all felt invigorated, and mostly restored to health and strength.

Many persons are deterred from using the warm bath, especially in winter, from the fear of catching cold; but this fear is groundless, for it has been found that the warm bath, by increasing the circulation on the surface of the body, renders it more capable of withstanding the effects of

cold than it otherwise would have been.

#### COLD BATHING.

Mr. Abernethy illustrates, in his usually forcible manner, an erroneous notion precalent, that cold is bracing, and heat relaxing; "which." he observes, "you need only consider to see its absurdity. Heat excites action; how can it relax? Now, I grant there is a difference between heat and moisture and mere heat. But cold is bracing; what is meant by that? They say a cold bath is bracing: ah! a man jumps into a cold bath, and he feels chilled. he jumps out again, and rubs himself all over with a coarse cloth; he is in igorated, refreshed, and cheery; he feels as if he could jump over the moon. The heat and vigour that he feels is not from the cold water—it is the result of the reaction which follows; it has roused the action of the head and arteries, and produced a temporary vigour and hilarity. If a man take a glass of brandy, he feels

vigorous enough afterwards; but you cannot say that the brandy is bracing. To make the experiment fairly, you should keep him in the cold water a length of time, and see what a poor shivering wretch he would be; why, you

might almost knock him down with a feather."

There is no truth in the vulgar opinion, that it is safer to enter the water when the body is cool, and that persons heated by exercise and beginning to perspire should wait till they are perfectly cool. It is a rule liable to no exception, that moderate exercise ought always to precede cold bathing; for neither previous rest, nor exercise to a violent degree, is proper on this occasion \*.

#### RECOVERY FROM DROWNING.

LITTLE or no water is found in the stomach of a drowned person; and when it is present, it can in no way have contributed to death. The experiments of Orfila and Marc have proved that water is never found in bodies submersed after death; and that it cannot be made to enter the stomach without the assistance of a tube passed into the gullet. This fact, and that of little or no water entering the lungs, cannot be too widely propagated, as the popular prejudice is in favour of the opposite opinion; and bodies taken out of the water are still rolled on barrels, and held up by the heels, in order to dislodge it; a practice fraught with the greatest danger, if the smallest chance of resuscitation exist †.

Persons diving to bring up a body, should know that they can see under water, and therefore not keep their eyes shut. A respectable person in the north of England dived for a body several times without effect; at last he opened his eyes whilst under water, and saw the body at a little distance; the consequence was, a fine boy was re-

covered and restored to life.

In cases of Drowning, inflation of the lungs by inexperienced persons is often attended with fatal consequences. A few years since, it was proved before the Academy of Sciences at Paris, that owing to the violence of the method of inflating the lungs, only two thirds of the persons susceptible of Recovery from Drowning had been ultimately brought to life; the proportion having formerly been nine-tenths.

\* Savory.

1 Dr. A. T. Themson.

#### ANTIPATUIES.

Many instances of Antipathies are no better than fables, and a severe examination would reduce them to the class of vulgar Errors. There are also fictitious aversions, having their source in affectation and a pretended delicacy of nerves. The greater part of Antipathies arise from prejudice; many from terrors inspired in infancy; and, in most cases, reflection and a gradual accustoming of ourselves to the objects of our dislike will weaken or remove the feeling of aversion; yet there are instances of incurable Antipathies, which seem to have their seat in the nervous system.

#### MEDICAL BOOKS.

A BOOK which directs people how to physic themselves ought to be entitled Ev ry Man his own Poisoner; because it cannot possibly teach them how to discriminate between the resemblant symptoms of different diseases \*.

#### THE USE OF POWERFUL MEDICINES

Is deprecated by many who see in them only the virulence of their concentrated forms. What we have mainly to regard in estimating the medicinal value of any substance, or its just application to practice, is the well defined nature of its action on some organ or function of the living economy. If this action be clearly ascertained, we have essentially a medicinal power in our hands. Every such agent, even the most simple, is capable of being misused by excess; and this excess, or the finess of its use, is determined, not by any comparison of the power of different agents, but simply by the amount of the effects The prussic acid diluted as befits appropriate to each. the peculiar application given to it, is not, in any practical sense, a stronger medicine than others most familiar to us, nor more dangerous in its use; and we have even some additional security in the more definite nature of its effects, and in the greater care bestowed on its administration +.

#### BITTERS AND TONICS.

BITTERS and Tonics are often confounded; whereas there is a great difference between them. "When weakness proceeds from excess of irritability, there bitters act

\* The Poctor. † Dr Holland's Medical Notes.

beneficially; because all bitters are poisons, and operate by stilling, and depressing and lethargising the irritability. But where weakness proceeds from the opposite course of relaxation, there tonics are good; because they brace up and tighten the loosened string. Bracing is a correct metaphor. Bark goes near to be a combination of a bitter and a tonic; but no perfect medical combination of the two properties is yet known "."

#### CHARCOAL TOOTH-POWDER.

CHARGOAL, when properly prepared is an excellent dentifrice, and will correct fetor of the breath, from its properly of absorbing gases. That Charcoal which is sold in boxes has however nothing to recommend it but its guiltiness if this be really a recommendation: it should be powdered with the utmost dispatch, in a very hot metal mortar, and quickly put into a bot-le, which should be well corked, and even sealed. When this powder is used, it should be exposed to the air as short a time as possible.

#### STRAMONIUM IN ASTHMA.

The indiscriminate use of the smoke of Stramonium has occasioned dangerous or hurtful effects in frequent instances. In some cases of aged or apoplectic subjects, dea h has been the consequence. No considerate physician can countenance this latitude of application, or advise its use without well knowing the nature of the case of asthma on which he is consulted †.

#### GIN FOR WORMS.

GIN, taken when the stomach is supposed to be most empty, is a popular remedy, in many parts of the country, for Worms; but violent inflammatory fever, and inflammatory excitement of the brain, are not uncommonly produced by it. The component parts of gin, which prove destructive to worms in the stomach, are the oil of juniper and oil of turpentine; and the ingredient which proves injurious to the system is the spirit, which probably promotes the poisonous effect of the juniper and turpentine on worms. The oil of turpentine will, however, act as beneficially as the gin, and, at the same time, not disorder the brain, or excite fever.

\* Coloridge.

† Dr. Bree.

#### WALKING IN WET CLOTHES.

If the Clothes which cover the body are damp, the moisture which they contain will be evaporated by the hear of the human body so fast as to produce cold. Thus, we see the danger of sitting in wet clothes. By walking in them, however, till they can be changed, we avoid this danger of ta ing cold; for the place of the heat carried off by the moisture in evaporating is amply supplied by the additional heat generated by the exercise.

#### A DAMP BED.

WHETHER a Bed be Damp can only be ascertained immediately after a person enters it; for the longer he remains in it. he less damp will it appear. The object of the bed-clothes is to check the escape of heat from the body, so as to supply at night that warmth which may be obtained by exercise or labour during the day. But, if the clo hes be damp, the heat supplied by the body is immediately absorbed by this moisture and passes off in vapour; and this effect would continue until the clothes were actually dried by the heat of the body.

#### THE TREAD-MILL.

The propriety of making men and women work on the Tread mill has been dispute t with much warmth, but may be as easily decided. They work by climbing on the outside of a large wheel or cylinder, which is turned by their weight; and on which they must advance just as fast as it turns, to avoid falling from their proper situation. There are projections, or steps for the feet, on the outside of the cylinder; and the action to the wo kers is exactly that of ascending an acclivity. Now, as nature fitted the human body as well for climbing hills as for walking on plains, the w rk of the tread-mill, under proper restrictions as to duration, must be as natural and healthful as any other. Its effects have now proved it to be so \*.

#### QUARANTINE.

QUARANTINE, so far from being a preventive of discase, tends to its increase. It cannot keep out atmospheric contagion; "but," as Coleridge observes, "it can, and does always, increase the predisposing causes of its reception."

\* Dr. Arnott's Elements of Physics.

#### PRUSSIC ACID NOT RAILE.

Physic Acid was named from its being first obtained from Prussian blue; a circumstance which may have led to its frequent occurrence in nature being long overloo! ed. Thus, " prossie or hydrocyanic acid has a most agreeable smell, which is easily recognised in certain flowers and in the blossoms of the wallflower, for instance various trees, as the peach tree and hawthorn; this soid, indeed, seems to be their adoriferous principle. It is found in various kernels, as those of the apricot, cherry, and almond; in the last, in such quantity as to have occasioned death. It exists in the leaves of the common laurel so largely, that a water distilled from this is almost instantaneous poison. This fact was discovered in 172 , at Dublin, where several persons who had used it as a cordial, mixed with spirituous liquors, were poisoned," Yet, to this day a kind of flavouring for pudding, which is sold contains a large proportion of this deadly poison.

#### DANGER PROM COPPER SALCEPANS,

THE precise Danger from the use of Copper Saucepans imperfectly timed is far from being generally understood, It appears that the acid contained in stews, as lemon-juice, though it does not dissolve copper by being merely boiled in it a few minutes, nevertheless, if allowed to cool and stand in it for some time, will acquire a sensible impregnation of poisonous matter, as verdigris, or the green band which lines the interior of the vessel. Dr. Paleoner has observed that syrup of lemons boiled bifeen minutes in copper or brass-pans did not acquire a sensible impregnation; but if it was allowed to cool and remain in the pans for twentyfour hours, the impregnation was perceptible even to the taste, and was discovered by the test of metaltic iron, This fact has been further confirmed by the researches of Projet, who states, that in preparing food or preserves in copper, it is not till the fluid ceases to cover the metal, and is reduced in temperature, that the solution of the metal begins \*.

Unctuous or greasy solutions are most liable to become impregnated with poisonous verdiguis if left long in untinued brass or copper vessels. Bir Humphry Davy

<sup>\*</sup> Christian on Potema.

asserts that weak solutions of common salt, such as are daily made by adding a little salt to boiling vegetables and other eatables in our kitchens, act powerfully on copper vessels, although strong ones do not affect them.

## LEADEN VESSELS.

Disastrous effects have often followed the incautious use of Lead for the fabrication of vessels used in manufactures, and for domestic purposes. A disorder formerly well known in this country, and called, from the county where it was most prevalent, "Devonshire colic," has been traced to the drinking of cyder in which lead was dissolved; the malic acid of the apple-juice exerting a powerful chemical ac ion upon the metal, and thereby forming the malate of lead, which is strong poison. In consequence of these evils and their cause being known, dishes or beds of lead for cyder-presses have generally fallen into disuse. But the reprehensible use of lead plates in dairies is not altogether discontinued; though it is well known that when the milk turns sour, it inevitably absorbs some of the metal.

## POISONING BY ARSENIC.

Examination after death is commonly believed to be the sure means of detecting poison; but it happens with Arsenic, as with most other poisons when taken into the somach, that it occasions vomiting; and it is no uncommon thing to find persons killed by arsenic, and yet be unable to detect the smallest portion of it after death in the stomach or bowels.

# "GOOD FOR MAN AND BEAST."

When the wind is in the cast, It's neither good for man nor beast,

Is a common saying; whence many poor persons conclude, that if what is bad for man is bad for beast, so what is good for beast is good for man. A poor small farmer seeing a quantity of turpentine administered to his cow, fancied soon afterwards that it would cure him; and not being particular in the quantity, he took half-a-pint, which killed him.

#### LUNATIOS.

Or the influence of the planets and the moon—notwithstanding the name of Lunatics, and the vulgar impressionsho proof whatever exists. Vet physicians of eminence—Mead even—have said. "the ravings of mad people kept lunar periods, accompanied by epileptic fits." The moon apparently is equally innocent of the thousand things ascribed to her. When the paroxysms of mad people do occur at the full of the moon, Dr. Enrowes inclines to explain the matter thus: "Maniacs are in general light sleepers; therefore, like the dog which haps the moon, and many other animals, remar ed as being always measy when it is at the full, they are disturbed by the flitting shadows of clouds which are reflected on the earth and surrounding objects. Thus the lunaic converts shadows into images of terror, and, equally with all 'whom reason lights not,' is filled with alarm, and becomes distressed and noisy."

# WHAT IS MADNESS?

Physicians and medical writers of every age seek earnestly for some formal definition of Madness :- a vain and neprofitable research! "Its shapes and aspects are as various as those of the human mind in a sound state. and as little to be defined by any single phrases, however laboriously devised. Where such definitions are attempted. especially in courts of law, they firly become matter of ridicule, or causes of contradiction and perplexity. Mental derangement, however the name be used, is not one thing, nor can it be treated as such. It differs in kind not less than in degree, and in each of its varieties we may trace through different causes all the gradations between a sound and unsound understanding, on the points where reason is thus disordered." Dr. Holland considers "one of the most assured unactical tests of insanity, particularly in cases of difficult legal discrimination, to be the sudden change of habitual judgments, feelings, or actions, without obvious cause" There are, however, instances in which this eriterion cannot be admitted alone; but, "it is manifestly more secure in general than the appeal to an imaginary common standard of reason, which scarcely two persons would describe alike"."

"I hough to drive one mad," is a common expression applied to the cares and crosses of this world and may lead many persons to imagine that grief is oftener than

<sup>\*</sup> Medient Notes.

madness the cause of joy. Yet, actual hopes or disappointments in pecuniary speculations do not appear, according to Dr Burrowes, to occasion insanity so frequently as unexpected or immense wealth, and consequent joy. In the six months preceding the numerous failures (or the panic) of 1×25.6, there were fewer returns to the commissioners for licensing mad-houses of insane persons in the London district, than in any corresponding period for many years before.

In madness, the memory is more impaired than is generally suspected. Lunatics recognise readily; but that appears to be the only part of their memory unimpaired.

#### RELIGIOUS MADNESS.

Among the moral causes of intellectual derangement, Religion has been enumerated, mainly because so many insane per-ons have been possessed by religious hallucinations. Excited to excess, every emotion and passion is capable of bringing on madness: if so, religion, calculated as are its tremendous considerations to influence our feelings, may well be supposed, by possibility, to be a cause of insanity. But still, though the hallucination be a religious one, the real source of insanity may be the very reverse of religion; and thus the religious hallucination itself rather be the effect than the cause of insanity. Generally, those who go mad through religion, as it is called, are people of susceptible temperament, or very weak heads. It is quite alle to impute the effects, as most people do, to the mysticism of the tenets inculcated, or to the intenseness with which abstract theology is cultivated; or to the subject of religion being impressed too ardently on persons too young, or too much uninformed to comprehend it. It is obviously much more to the purpose to look to the condition in which the perceptive reasoning powers actually were, before religion appeared to bring on derangement Dr. Burrowes's great experience goes to show that the effect springs immediately from some perversion of religion, or the discussion and adoption of novel and extravagant doctrines, at a juncture when the understanding, from other causes, is already shaken. Nor does he recollect one instance of ins mity, arising apparently from a religious source, where the party had been undisturbed about opinions. It appeared to him always to originate during the conflict between opposite doctrines, before conviction was determined. While the mind is in suspense from the dread of doing wrong in matters of conscience, and the balance is poised between old and new doctrines, involving salvation, the feelings are excited, (he says.) to a morbid degree of sensibility. In so irritable a state, an incident, which at any other time would pass unheeded, will cheit the latent spark, and inflame the mind to madness.

#### RIDICULE OF HYPOCHONDRIACS.

There is a common notion that certain invalids can be laughed out of their complaints; than which few ideas are more erroneous. Thus, to ridicule the complaints of the Hypochondriac is very inconsiderate; for, as the physician is often obliged to humour the patient, and to prescribe what is termed a placeto, so relations and others should, when the patient appears from increased irritation to require soothing, listen to a string of complaints, which they know to be in a great measure exaggerated; rather than by totally disregarding and ridiculing them, add to the irritation of the mind of the individual, who, notwithstanding his fancies, is actually in a state of disease.

#### CURE FOR HYPOCHONDRIASIS.

THE Errors of "a mind diseased" are, happily, of readier correction than is generally imagined. The best relief for Hypochondriacs appears to be by useful and disinterested occupation is promoting the welfare of others; but there is not probably, any instance of a cure perfected in a case apparently so hopeless as that of Captain Blake, distinguished for his exertions in the attempt to supply London with fish by land-carriage. The Captain was a most sensitive hypochondriac for several years, during which time he was reldom more than a week or two without consulting Dr. Heberden, who had not only tried all the medicines which he thought likely to correct any cause of disease arising from hodily infirmity, but every argument for the comfort of his patient's mind and in vain. length, Dr. Heherden heard no more of his patient till, after a considerable interval, he found that Captain Blake had formed a project of conveying fish to London from some of the scaports in the west, by means of little carts adapted for expeditions land-carriage. The arrangement and various occupations of the mind in forwarding this object were sufficient entirely to supersede all sense of his former malady, which from that time never returned.

#### нурхорновіл.

It is an Error to imagine that a mad dog avoids the water; for he will both drink it and swim in it as usual, and without presenting any of that horror of it which characterises Hydrophobia in man.

## NATURE OF SLEEP.

It is not uncommon to hear persons attribute the sleeping of "guilty creatures" to hardness of heart, or recklessness. This is an Error, referable to ignorance of the nature of sleep, and of the fact "that all degrees of excitement in the parts of the brain and spinal marrow, associated with the nerves of the sensitive system, are followed by proportional exhaustion. The only limit to this law is the capability of bearing in those parts. Exhausted by mental excitement, the criminal is often awakened for his execution; and the soldier, both by mental and bodily excitement, sleeps by the roaring cannon"."

# SLEEPING WITH THE EYES OPEN.

There are some persons who Sleep with their Eyes Open; and a man may stand before another man in such a situation, with a lighted candle in his hand, so that the image of that person who has the light may be vividly depicted on the retina of the sleeping man; but does he see—is he sensible of it? No! This has been magnified into a wonder; whereas it only proves what Dr. Darwin long since asserted—that sensation does not depend upon impressions made upon the nerves, but upon actions excited in them. Arouse the slumberer; awake him that sleepeth; bring but the natural excitement into his nerves and muscles, and he would exclaim: "God bless me! how came you here at this time of night?"

# PREVENTION OF SLEEP.

"Trying to get to Sleep," or great anxiety to bring on sleep, is more or less its preventive; the disengagement of the mind from any strong emotion, or urgent train of thought, being the most needful condition for attaining

\* Dr Philip. | Abernethy.

sleep. This anxiety or desire to sleep, as a mental disquiet, will only add to the corporeal disquiet which has produced it; the motions of the mind must be as quiescent as those of the body; and the will, instead of commanding or interfering, must tranquilly resign itself to the general "The various artifices of thought and memory used for the purpose often fail from this cause. they succeed it depends either on the exhaustion being more complete, or the mind being rapidly carried from one object to another : a desultory state of this kind, without emotion, being apparently one of the conditions most favourable to the effect desired. The close dependence of sleep on the state of the alimentary canal makes it probable that evil is often incurred by giving purgatives habitually at bed-time. The custom is a common one; and not least so in dyspeptic cases. Yet, here especially. everything ought to be avoided which by irritation can disturb the soundness of rest a consequence often inevitable of the action on the membranes which aperient medicines produce. Advantage may be gained in such cases, by changing the time of using these remedies, where they cannot be dispensed with altogether .. "

# SOUND SLEEP.

"Sound Sleep" is usually considered a healthy state of repose; but it is an observation of Dr. Wilson Philip†, that no sleep is healthy but that from which we are easily aroused.

#### MOUNTNG DILLAMS.

The old notion of the "S mnia vera" of approaching day—" Morning dreams come true," is interpreted by the hysical state of sleep being then less perfect. trains of thought suggested follow more nearly the course of waking associations; and the memory retains them, while earlier and more confused dreams are wholly lost to the mind.

#### TRACES OF DREAMS.

Persons are frequently at a loss to account for the reception of certain impressions, which are commonly a source of erroneous judgment. Dr. Holland observes:

 Dr. Holland's Medical Notes, † Phil. Trans. for 1939. "There are few who have not occasionally felt certain vague and fleeting impres ions of a past state of mind, of which the recollection cannot, by any effort, take a firm hold, or attach them to any distinct points of time or place—something which does not link itself to any part of life, yet is felt to belong to the identity of the being. These are not improbably the shades of former dreams; the consciousness, from some casual association, wandering back into that strange world of thoughts and feelings in which it has existed during some antecedent time of sleep, without memory of it at the moment, or in the interval since."

#### CAUSES OF TRANCE.

Magnetic sleep, or trance, has served at all times to perplex the world by the strange breach it seems to make between the bodily and mental functions, by its unexpectedness in some cases, and by the peculiar agency producing it in others. Dr. Holland observes that, "as respects magnetic sleep or trance, in all its alleged shapes, there is no well authenticated fact making it needful to believe that an influence is erceived from without, beyond those impressions on the senses which are capable, according to the temperament and other circumstances of existing disordered as well as heal hy actions, throughout every part of the nervous system, and especially in the sensorial functions."

# SLEEP-WALKING.

It is from remembering the action of a dream as long as the dream lasts, that Somnambulists generally meet with no accident in ascending to perilous situations during their sleep. The surrounding localities are so correctly presented to the mind, that the person ascends with safety to the roofs of houses, or crosses torrents and bridges, which, during the waking state, he would be afraid to do—the passion of fear being destroyed by sleep. The perilous situations of somnambulists have formed the wonder and admiration of gazing multitudes; and the mind of the vulgar has been impressed with the importance of leaving the sleep-wanderer to his own guidance, where a mistake in his footing of the twentieth part of an inc would have plunged him into eternity.

\* Medical Notes. † Medical Notes.

It should also be recollected that the somnambulist is limited in all he does, during this state to the ideas which are furnished by the dream, under the impressions of which he acts: his mind, it should seem and his organs of sense generally, are likewise limited to these impressions.

# SLEEP OF AGED PERSONS,

The wakefulness common to old people is by no means so great an affliction as certain persons imagine it to be. "They use but little exertion, and hence require but little sleep; and the internal activity is upon a par with the external. A third part of the vessels perhaps that took a share in the general energy of the middle life is obliterated; and the wear and tear of those that remain are much less. The pulse beats feebly; the muscles of respiration are less forcibly distended; the stormach digests a smaller portion of food for only a smaller portion is required; the intellect is less active the corporeal senses less lively; and hence, though there is far more weakness than in earlier life there is a less proportionate demand for exertion, and hence a far smaller necessity for sleep?"

# ABSTRACT STUBLES.

LATE hours of Abstract Studies, in some instances, are not attended with such fatigue as is generally imagined. "The mind may be intensely directed to some peculiar object of study; and the energy of the will becomes, in this case, a like stimulus to the scretion of a fresh or protracted tide of sensorial power; so that the usual exhaustion of the nervous system does not take place at the accustomed period. This is peculiarly the case in a pursuit of the abstract sciences, or those of a more scrietly intellectual nature—as the higher branches of the machematics."

#### SATURE OF DEATH.

Straut. An stories are related of animals moving after they are said to be dead; but such narratives are frequently disbelieved, owing to ignorance of the nature of death. What is commonly called death consists in the extinction of the sensorial functions only; for the nervous

# Mr. Langston Parker. | Hr. Hooper. | Dr. Hooper.

and muscular functions may still, for a time, survive; although, in consequence of the failure of respiration, they also speedily terminate. Sensorial death is thus distinguished from what constitutes actual death,—that is, the cessation of all the functions, and which occurs at a later period.

The decline and cessation of the sensorial powers are exceedingly analogous to the approach and occurrence of sleep; the only difference being, that the former is an irrevocable failure of those powers, while the latter admits of their being resumed, with renovated vigour, by the

continued action of the vital powers.

This analogy of sleep to death reminds one of a beautiful aphorism by an old writer, Sir Thomas Browne: "Sleep is death's younger brother, and so like him, that I never dare trust him without my prayers." Natural death, or death from old age, is, indeed, only the last sleep.

# THE FEAR OF DEATH.

PROFESSOR HUFELAND observes, in his work on Longevity, that " many fear death less than the operation of People form the most singular conception of the dying. last struggle, the separation of the soul from the body, and the like. But this is all void of foundation. certainly ever felt what death is; and as insensibly as we enter into life, equally insensibly do we leave it. The beginning and the end are here united. My proofs are as follow: First, man can have no sensation of dying; for, to die, means nothing more than to lose the vital power; and it is the vital power which is the medium of communication between the soul and body. In proportion as the vital power decreases, we lose the power of sensation and of consciousness; and we cannot lose life without at the same time, or rather before, losing our vital sensation, which requires the assistance of the tenderest organs. We are taught also by experience, that all those who ever passed through the first stage of death, and were again brought to life, unanimously asserted that they felt nothing of dying, but sunk at once into a state of insensibility.

"Let us not be led into a mistake by the convulsive throbs, the rattling in the throat, and the apparent pangs of death, which are exhibited by many persons when in a dying state. These symptoms are painful only to the spectators, and not to the dying, who are not sensible of them. The case here is the same as if one, from the dreadful contortions of a person in an epileptic fit, should form a conclusion respecting his internal feelings: from what affects us so much, he suffers nothing."

# "THE LIGHTNESS BEFORE DEATH."

THE brightening up of the mind previously to dissolution, or, to use the common expression, "the Lightness before Death\*," has led to a notion that dying people are favoured beyond others with a spiritualised conception of things not only relating to time, but likewise to eternity; or, in other words, that they have visions of angelic consola-This lighting up of the mind is stated by Mr. Madden to amount to "nothing more than a pleasurably excited condition of the mental faculties, following perhaps a state of previous torpor, and continuing a few hours, or oftentimes moments, before dissolution, This rousing up of the mind is, probably, produced by the stimulus of dark venous blood circulating through the arterial vessels of the brain, in consequence of the imperfect oxygenation of the blood in the lungs, whose delicate air cells become impeded by the deposition of mucus on the surface, which there is not sufficient energy in the absorbents to remove; and hence arises the rattling in the throat which commonly precedes death."

#### NATURE OF DEATH.

DR. PHILIP, in an elaborate paper read before the Royal Society, on the Nature of Death, has adduced many facts and arguments to strip a change which all must undergo of the groundless terrors with which, we have reason to believe, the timid and fanciful have clothed it.

"The approach of death," says Dr. Philip, "if we are aware of it, must always be more or less impressive, not only because we are about to undergo an unknown change, but are leaving all that has hitherto interested and been

<sup>\*</sup> Shakspeare calls it " the lightning ;"

<sup>&</sup>quot;How oft when men are at the point of death 'lave they been merry, which their keepers call A lightning before death,"

grateful to us. Even here, however, for the most part, the laws of nature are merciful. Most diseases of continuance. (for we shall find there are some exceptions,) not only gradually impair our sensibility, but alter our tastes. They not only render us less sensible to all impressions, but less capable of enjoying as far as we are still sensible to them. The sight of a feast to a man who has lost his appetite is disgustful; and a similar change takes place, in a greater or less degree, with respect to all other means of

enjoyment.

"These circumstances constitute a great part of the difference of our feelings with respect to what, in common language, is called a violent and a natural death. In the latter, as far as sensibility is impaired, we are more or less in the state of old age; and, in addition to this change, our tastes are perverted. By these means, the relish for life is, in a great degree, destroyed before we lose it. Thus, in disease, the most timid often meet death with composure; and sometimes, as I have repeatedly witnessed, with pleasure. I have even known the information that the danger was passed received only with expressions of regret."

# SUFFERINGS OF THE DEATH-BED.

THE circumstance which has given rise to our notions respecting the Sufferings of our last moments is, that in certain diseases there is a convulsive action of the muscles at the time at which the sensibility is extinguished. But these are not acts of volition. The laws of our nature tell us that they are not the effects of suffering; and we never see in the patient any indication that he suffers. Were they indications of a struggle of feeling, necessarily connected with the last act of dying, as has been supposed, they would be a constant symptom; whereas, they only occur under certain circumstances of the constitution or the disease. One of the least painful of violent deaths is that from loss of blood; yet here this struggle very uniformly attends the last act of dying, according to the common acceptation of the term; and it is evident that here the sensibility, in consequence of the failure of circulation, is almost extinguished before this involuntary action of the muscles takes place. The struggles,

therefore, the laborious and convulsive heavings of the chest, are wholly automatic (or mechanical), independent of the will,—a part of the mechanism of the body, contrived for its safety, which continues to act when the mind is unconscious of the sufferings of the frame, or is occupied by soothing illusions\*.

# DEATH BY LIGHTNING,

Few persons who have not inspected a human body struck by Lightning have a correct idea of the mode in which the stroke effects a sudden termination of life. The visible alterations in the frame afford a striking contrast to the ordinary ravages of what is termed disease. The machinery of the body appears nearly perfect and unscathed, and yet, in none of the multitudinous forms of death is the living principle so summarily annihilated.

# UNCERTAIN SIGNS OF DEATH,

THE cessation of pulsation in the heart and the arteries, and coldness of the body, are commonly thought to be certain Signs of Death; but the researches of science have proved them to be very fallacions. A more certain sign is the suspension of respiration, for it cannot be continued many minutes without actual death supervening; whereas the action of the heart and arteries may be suspended for a considerable time, if respiration be still carried on, however obscurely, and yet these organs he again awakened to activity. The first object, therefore, in supposed death, is to ascertain whether respiration still continues. can, in many instances, he perceived by baring the thorax and abdomen; since it is impossible for breathing to be carried on for many seconds without the influence of the respiratory muscles, the effect of the action of which is to elevate the ribs and depress the diaphragm, so as to push forward the sternum, and cause a momentary swelling of the abdomen. It is of great importance to the young practitioner to accustom his eye to judge accurately of these movements, as the ordinary methods of applying a mirror to the mouth, or a downy feather near it, are both

\* Dr. Philip.

siable to error. If the mirror be warmer than the expired breath, no sign can be obtained by it, because the breath is not condensed upon it; or, the insensible perspiration from the hand of him who holds it may sully its surface; whilst "the light and weightless down," if confided in, will delude more than the prince, who is thus described as having been deceived by it, when carrying off the crown from the pillow of his royal father:

"By his gates of breath, There lies a downy feather, which stirs not: Did he respire, that light and weightless down Perchance must move."

Another symptom, the opacity and want of lustre in the eye, is equally fallacious; even the thin slimy membrane which covers the cornea in the eye of the dead, which breaks in pieces when touched, and is easily removed from the cornea by wiping, sometimes is formed many hours before death has occurred. In several instances, also, this appearance does not present itself even after death; as, for instance, in cases of poisoning by hydrocyanic acid, in which the eye retains all its lustre for hours after death; and the iris even contracts when approached by a bright light. This sign, therefore, when taken alone, is of no value.

The state of collapse, which is one of the symptoms of cholera asphyxia, has demonstrated how little is the value of coldness of the body as a sign of death. In that singular disease, the coldness which accompanies the state of collapse is that of ice, and during it no pulsation can be perceived, even at the heart; yet the person lives and breathes, and frequently recovers. Drowned persons also, in whom animation is only suspended, and who may be recalled to life, are always cold; whereas in some diseases, apoplexy for example, a certain degree of warmth is perceived for many hours.

Paleness and lividity of countenance always accompany the above state of collapse; the body even becomes blue: this sign, therefore, which is usually set down as one indicating death, is of less value than any others. Cases, on the other hand, have occurred in which the countenance has remained unchanged a considerable time after death; and in some instances, as Dr. Paris has remarked, "its colour and complexion have not only been preserved, but

even heightened:" as if the spirit, scorning the blow which severed it from mortality, had left the smile it raised upon the moveless features; or, as Shakspeare would express it,

> "Smiling, as some fly had tickled slumber; But as Death's dart, being laughed at."

From these, and other observations, by the same writer, Dr. A. T. Thomson, it is evident, that there are no certain signs that a person is truly dead, except the total cessation of respiration, and the commencing putrefaction of the body.

## DEATH NOT PAIN.

Dearn and Pain are inseparable in most men's minds ! yet, lu a recent communication to the Hoyal Society, Dr. Philip stated, that death, under its various forms, whether arising from old age, excessive stimulants producing exhaustion debilitating causes that weaken vital action, injury or disease of vital organs, is always preceded by a loss of sensibility, so that the precise action we properly call death, is one unattended with pain. This is proved by the experience of those who have been recovered after submersion or strangulation; for they all agree that no pain was felt when the vital actions were suspended, but that acute pain attended their first sensations of returning life. Death, then, is simply the loss of sensibility. This reminds one of the saving of Arcesilaus, that " Death, of all estimated evils, is the only one whose presence never incommoded anyhody, and which only caused concern during its absence."

# IS THE FEAR OF DEATH NATURAL TO MAN?

"The wearlest and most loathed worldly life, That age, ache, perury, and imprisonment Can lay on mature, is a paradise To what we fear of death."

Many good and great men, in their lives and writings, have laboured to prove that the Fear of Death is not natural to man. In no inodern writings, however, have we seen this interesting inquiry more eloquently treated than in the following passage in Dr. Southey's Colloquies:—'Surely to the sincere believer, death would be an object of desire instead of dread, were it not for those ties—those heartstrings—by which we are attached to life. Nor indeed do

I believe that it is natural to fear death, however generally it may be thought so. From my own feelings, I have little right to judge; for, although habitually mindful that the hour cometh, and even now may be, it has never appeared actually near enough to make me duly apprehend its effect upon myself. But from what I have observed, and what I have heard those persons say whose professions lead them to the dying. I am induced to infer that the fear of death is not common, and that where it exists, it proceeds rather from a diseased and enfeebled mind, than from any principle in our nature."

#### CAUSES OF DROWNING.

Dr. Arnott, in his popular Elements of Physics, states the following reasons why, in ordinary accidents, so many persons are drowned who might easily be saved:—

1. Their believing that the body is heavier than water, and therefore that continued exertion is necessary to keep them swimming; and hence their generally assuming the position of a swimmer, in which the face is downwards, and the whole head has to be kept out of water to allow of breathing. Now, as a man cannot retain this position without continued exertion, he is soon exhausted, even if a swimmer; and if not, the unskilful attempt will scarcely secure for him even a few respirations. The body raised for a moment by exertion above the natural level, sinks as far below it when the exertion ceases; and the plunge, by appearing the commencement of a permanent sinking, terrifies the unpractised individual, and renders him an easier victim to his fate.

2. From a fear that water by entering the ears may drown, as if it entered by the nose or mouth, a wasteful exertion of strength is made to prevent it; the truth being, however, that it can only fill the outer ear, or as far as the membrane of the drum, and is therefore of no conse quence. Every diver and swimmer has his ears filled with water, and with impunity.

3. Persons unaccustomed to the water and in danger of being drowned, generally attempt in their struggle to keep their hands above the surface, from feeling as if their hands were tied while held below; but this act is most hurtful, because any part of the body kept out of the water in addition to the face, which must be out

requires an effort to support it, which the individual is

supposed at the time incompetent to afford.

4. The not having reflected that when a log of wood or a human body is floating upright, with a small portion above the surface, in rough weather, as at sea, every wave in passing must cover the head for a little time, but will again leave it projecting in the interval. The practised swimmer chooses this interval for breathing.

5. Not knowing the importance of keeping the chest as full of air as possible, the doing which has nearly the same effect as tying a bladder of air to the neck, and without other effort will cause nearly the whole head to remain above the water. If the chest be once emptied, while from the face being under water the person cannot inhale again, the body remains specifically heavier than water, and will sink.

# II.-PROPERTIES OF FOOD.

#### DIETETICS.

Much more importance is attached to medical cautions about the use of food than they merit; for "Dietetics must become a much more exact branch of knowledge before we can be justified in opposing its maxims to the natural and repeated suggestions of the stomach, in a state either of health or disease "."

# GOURMANDISM AND EPICURISM.

Lady Blessington notes: "Let me efface the last term. Epicurism, which is so injuriously and so falsely applied to the philosopher from whom it takes its name; and let me not confound his refined moral system with the indulgence in sensual enjoyments of those professing themselves Epicureans. I have never, without indignation, heard the term applied, since I read Browne's Inquiries into Vulgar and Common Errors, and yet I was

\* Dr. Holland's Medical Notes.

about to use it in this injurious sense; so prone are we to continue in errors we have once believed. But how many of our opinions are founded on equally erroneous premises."

#### NOURISHMENT IN FOOD.

The wholesome or unwholesome character of any Aliment depends, in a great measure, on the state of the digestive organs, in any given case. Sometimes, a particular kind of food is called wholesome, because it produced a beneficial effect of a particular character on the system of an individual. In this case, however, it is to be considered as a medicine, and can be called wholesome only for those whose systems are in the same condition. Very often a simple aliment is made indigestible by artificial cookery. Aliments abounding in fat are unwholesome, because fat resists the operation of the gastric juice. The addition of too much spice makes many an innocent aliment injurious, because spices resist the action of the digestive organs, and produce an irritation of particular parts of the system.

In any given case, the digestive power of the individual is to be considered, in order to determine whether a particular aliment is wholesome or not. In general, we can only say that aliment is healthy which is easily soluble, and is suited to the power of digestion of the individual; and, in order to render the aliment perfect, the nutritious parts must be mixed up with a certain quantity of innocent substance affording no nourishment, to fill the stomach; because there is no doubt that many persons injure their health by taking too much nutritious food. In this case, the nutritious parts, which cannot be dissolved, act pre-

cisely like food which is, in itself, indigestible.

It is a very mistaken idea that the nourishment in food is according to the quantity: a person may eat a great deal of some articles, and receive very little nourishment from them. The quantity of nourishment depends greatly on the aromatic flavour contained in food; and whatever is insipid to the taste is of little service to the stomach. Now, the difference between good cookery and bad cookery lies principally in the development of the flavour of our food; articles properly cooked yield the whole of it: by good cookery we make the most of everything—by bad cookery, the least.

#### ANIMAL C. VEGETABLE POOD.

A most erroneous idea has prevailed regarding the use of Animal Food, which has been considered as the best calculated to render mankind robust and courageous. This is disproved by observation. The miserable and timid inhabitants of Northern Europe and Asia are remarkable for their moral and physical debility, although they chiefly live on fish or raw flesh; whereas the athletic Scotch and Irish are certainly not weaker than their English neighbours, though the former consume but little meat. The strength and agility of the negroes is well known, and the South Sea Islanders can vie in bodily exercises with our stoutest seamen. We have reason to believe that at the most glorious periods of Grecian and Roman power, the armies principally subsisted upon bread, vegetables, and fruits\*.

Contrary to the general opinion, animal food, if of a mild quality, is more digestible than vegetable, and solids are more digestible than fluids. Again, animal food is easier of digestion and more nutritious than fish; but it is also more heating. Although salt be an assistant to digestion, yet salted meat, as ham, bacon, hung beef, and similar articles, are very indigestible.

# THE FORDNESS OF THE ENGLISH PROPER FOR ANIMAL FOOD

Amounts almost to a National Error. Sir Francis Head relates, in his Hubbles from the Brunnens of Nassau; "Two German tailors had been cheerfully eating a vegetable dinner - so does the Italian who lives on maccaroni; — so does the Irish labourer who lives on potatoes; — so do the French peasants who eat little but hread; so do the millions who subsist in India on rice--in Africa on dates —in the South-Sea Islands and West Indies on the bread-tree and on yams; in fact, only a very small proportion of the inhabitants of this globe are carnivorous; yet, in England, we are so accustomed to the gouty havry of meat, that it is now almost looked upon as a necessity; and though our poor, we must all confess, generally speaking, are religiously patient, yet so soon as the middle

\* Dr. Millingen.

classes are driven from animal to vegetable diet, they carnivorously both believe and argue that they are in the world remarkable objects of distress—that their country is in distress—that 'things cannot last;'—in short, pointing to an artificial scale of luxury, which they themselves have hung up in their own minds, or rather in their stomachs, they persist that vegetable diet is low diet—that being without roast-beef is living below zero, and that molares, or teeth for grinding the roots and fruits of the earth, must have been given to mankind in general, and to the English nation in particular—by mistake."

## RULE OF EATING.

"To eat a little and often," is a rule frequently followed, because it is in accordance with our feelings; but it is a very bad rule, and fraught with infinite mischief. Before the food is half digested, the irritable nerves of the upper part of the stomach will produce a sensation of craving; and, it is sufficiently evident that to satisfy this craving by taking food, is only to obtain a temporary relief, and not always even that, at the expense of subsequent suffering. There can be no wisdom in putting more food into the stomach than it can possibly digest; and, as all regularity is most conducive to health, it is better that the food should be taken at stated periods \*.

#### FALSE APPETITE.

A FALSE appetite, a craving that does not arise from the demands of health, but from the morbid piquancy of the juices in the stomach, is a state in which more is taken than can be digested—the food being devoured rather than eaten.

This condition of the stomach has led to the notion that the parties have had to feed another animal besides themselves; and the uneducated do not he-itate to believe that a large worm, and even a wolf, are occasionally inhabitants of that viscus.

<sup>\*</sup> Mr. Richards, on Nervous Disorders.

<sup>†</sup> In India is found a plant, a species of hellebore, (not the hellebore of the druggists,) a portion of which being taken medicinally by persons so afflicted with dyspepsia as to reject all food, will cause the appetite to return. This plant is called by the natives, "the Indian's Root."

Í

#### IMAGINARY THIRST.

THE development of a certain morbid feeling is often mistaken for Thirst, to which it has a great analogy. Such is caused by the vicious habit of frequently drinking, and the desire of tasting some liquids, as brandy, wine, &c.

Nothing produces thirst so much as quenching it, or

grows more readily into habit than drinking.

## WARMTH PROM SPIRITS.

In hard winters, the lower classes, having no fire at home, go to a public-house and sit there; and many of them believe that taking Bpirits internally warms them, and answers the same purpose as going to a fire; they think it a question, which of the two ways will warm them best, not deeming it more injurious to health to warm them in the one way or the other. The want of fuel is particularly felt, and it is known that disease prevails to a much greater extent when the winter is severe; from that cause persons drink more, and suffer more in various ways.

# "THE BILIOUS."

There is a popular notion that "butter is bilious," which means, that it increases the secretion of bile to an inconvenient degree. This may, probably, be the case with some dyspeptics; but when used in moderation, butter has certainly not this effect with the majority of

persons.

There is also a general prejudice against beer in the case of the bilious and the sedentary; but it appears without foundation. Bilious people are such as have weak stomachs and impaired digestion; and those who are sedentary are nearly in these respects always in a similar state. Now, beer does not tend to weaken such stomachs, to become accescent (sour) or otherwise to disagree with them: on the contrary, it will be found, in the majority of cases, that beer agrees with them much better than wine, since it is far less disposed to accescence, better fitted to act as a stomachic, and, therefore, to invigorate both the digestive organs and the constitution at large.

<sup>\*</sup> Evidence of Dr. Arnott, before the House of Commons, on the Health of Towns.

#### ERRORS OF COOKERY.

In the hand of the skilful Cook, alimentary substances almost entirely change their nature, form, consistence, odour, taste, colour, composition, &c.; everything is so modified that it is impossible for the most delicate tastes to recognise the original substance of certain dishes. The useful object of Cookery is to render aliments agreeable to the senses, and of easy digestion; but it rarely stops here: frequently, with people advanced in civilisation, its object is to excite delicate palates or difficult tastes, or to please vanity: then, far from being a useful art, it becomes a real scourge, which occasions a great number of diseases, and has frequently brought on premature death\*.

#### PLAIN GOOKERY.

THE culinary art engages no small share of attention among mankind; but, unfortunately, Cooks are seldom chemists, nor, indeed, do they understand the most simple of the chemical principles of their art : hence their labour is most frequently employed, not in rendering wholesome articles of food more digestible-which is the true object of Cookery-but in making unwholesome things palatable, foolishly imagining that what is agreeable to the palate must be also healthful to the stomach. A greater fallacy can scarcely be conceived; for though, by a beautiful arrangement of Providence, what is wholesome is seldom disagreeable, the converse is by no means applicable to man, since those things which are pleasant to the taste are not unfrequently very injurious. Animals, indeed, for the most part, avoid instinctively all unwholesome food, probably because everything that would be prejudicial is actually distasteful to them; but as regards man, the choice of articles of nourishment has been left entirely to his reason+.

#### FRENCH AND ENGLISH COOKERY.

THE principles of French and English Cookery are but imperfectly understood, else we think the superiority of the former would be more readily acknowledged.

In France, most substances are exposed through the medium of oil or butter to a degree of temperature of at least 600° Fahrenheit, by frying or braizing. They are

\* Dr. Hooper. | Dr. Prout's Bridgewater Treatisc.

then unacerated with a little water, at a low temperature, far below the boiling point, 212° not perhaps higher than 180°; and by these united processes, the most refractory articles, whether of animal or vegetable origin, are reduced more or less to the state of pulp, and admirably adapted for the further action of the stomach.

In common English Cookery, on the contrary, articles are usually put into a large quantity of water, and carelessly boiled; and, consequently, most animal substances when taken out are harder and more indigestible than in the natural state; for it is well known that albuminous substances, (as, for example, the white of an egg.) become

the harder the langer they are builted.

These observations are often of the utmost importance in a medical point of view. When the powers of the stomach are weak, a hard and crude English diet (such as half-raw beef steaks, so frequently recommended) is sure to produce much discomfort by promoting scidity; while the very same articles well cooked upon French principles, or rather the principles of common sense, can be taken with impunity, and easily assimilated by the same individuals.

# HUAST AND BUILDED MEATS:

Corresponding statements are made of the relative nourishment in Boast and Boiled Meats; which may be reconciled as follows: -- In meat, both allowen and gelatine exist; and as the latter is soluble in warm water, hence the difference in the nutritions quality of butcher's meat, according to the mode of cooking it. When, for instance, meat is boiled, the greater part of the gelatine is extracted and retained by the somp; when, on the contrary, it is toosted, the gelatine is matter is not removed; so that roasted meat contains both gelatine and allowner, and should, therefore, be more nutritions than boiled.

# ARIMAL FORTE FOR OULLINES!

Triese isno greater form in the management of children than that of giving them animal diet very early. To feed an infant with solid animal food before it has teeth proper for masticating, shows a total disregard to the plain indications of nature in withholding teeth suited to this pur-

# Quarterly Review

pose until the age at which the system requires solid food. Before that time, milk, fa inaceous food, and animal broths, afford that kind of sustenance which is at once best suited to the digestive organs, and to the nutrition of the system. The method of mincing and pounding meat as a substitute for mastication may do very well for the toothless octogenarian, whose stomach has been habituated to concentrated nutriment; but the digestive organs of a child are not adapted to the due preparation of such food, and will be disordered by it. When the child has the means of masticating, a little animal food may be allowed; but at first, this should be of the lightest quality, and allowed on alternate days only, and even then its effects should be watched; for all changes in the regimen of children should be gradual.

#### PLAIN DINNERS.

It is a common opinion, that the simpler the food, the more easily it is digested; and that the human stomach will more readily dispose of a dinner consisting of a single article of food than of two or three, although the quantity eaten of the single article exceed that of the two or three collectively. That this is an Error, though an old, and therefore a more inveterate one, is shown as follows: - All carnivorous animals, except man, gorge themselves with animal food without any admixture. Nature has provided them with the means of digesting this kind of food in a homogeneous state and raw. This is not the case with omnivorous man. All the animal, and much of the vegetable food taken by man, especially in a civilised state, requires to be softened by fire before he can swallow, much less digest, it. Now, though other animals eat and relish animal food alone, man cannot do so without distress. The human stomach digests better with an admixture of meat and bread, or potatoes, than with a mass of meat only. Thus, the human stomach requires heterogeneity in food. To this may be added, the well-known physiological fact, that the chyle produced from vegetable food is precisely of the same nature as that produced from animal food. Whatever the stomach can digest, vields chyle with exactly the same chemical properties. This fact strengthens the argument. If, therefore, an admixture of one or two articles be advantageous, there is no physical reason why the addition of any moderate number of articles, wholesome and grateful to the palate, should not be equally advantageous, provided the stomach be not overloaded.

#### SUPPERS RECOMMENDED.

Suppers are almost universally condemned, as tending to produce indigestion and disturb rest; and, by many persons, late dinners have led to the discontinuance of eating suppers. Dr. Holland+, however, considers that "we deal injuriously with the night by bringing the time of dinner so closely upon it. The interval of four or five hours between the heaviest meal of the day, and the time of going to bed, is by no means that most favourable to sound rest. The early stage of digestion is passed over, during which there is a natural tendency to repose; and we seek it at a time when the system, as respects the influence of food, is taking up a more active state-and when exercise, rather than the recumbent posture, is expedient in forwarding healthily the latter stages of this process. The old method of supper at bed time, in sequel to dinner in the middle of the day, was better in regard to the comfort and completeness of rest at night; and the habit of good sleep may often be retrieved by adopting a plan of this kind, when every anodyne has failed of effect."

# SOUP PROM BONES.

The extraction of Gelatine for Soup from Bones has not met with the attention it deserves in this country. D'Arcet's apparatus is an improvement of Papin's digester; by which 800,000 rations of soup are made in Paris, weekly, from bones: and it is confidently stated, that if the bones of an ox were put into the digester, and the whole of the flesh into any other vessels, the bones would yield one-third more gelatine for soup than the whole of the meat; r. e. the proportions of the former would be as three, the latter as two. The fibrine, of course, would be eatable and useful: it is of the soluble matter only that account is here taken. The refuse of the bones, after the gelatine is removed, forms excellent materials for making animal charcoal.

<sup>\*</sup> Magazine of Domestic Economy. † Medical Notes. ‡ Medical Gazette.

#### TURTLE SOUP.

A RECENT writer remarks: - "the soup miscalled 'Turtle Soup' is an excellent soup; but it is not Turtle Soup. I admit it to be a rich and savoury compound, in which some morceaux of its godfather may occasionally be found floating; but the suscitating juices with which the occidental luxury is presented to us, are extracted from the hinder legs of a calf and an ox; the foundation (or stock) is, in fact, composed of veal and beef, and a masterly introduction of appetising condiments, which are both palatable and pleasing; but it is no more like the Turtle Soup of the eastern hemisphere, than pea-soup, made from that delicate vegetable in the spring, is to a nankeen-coloured mess, concocted in the winter, bearing the same name. The truth is, the turtle is too expensive a delicacy to warrant such a lavish expenditure of its succulent nourishment, too precious to waste. In the West Indies, c'est une autre affaire; the turtle is too plentiful to require the meretricious aid of stock and gravy. There the whole is consumed for soup, except the callipee, and it is extremely delicious."

# COPPER IN MEAT.

The culpable neglect of the tinning of the insides of Copper Saucepans has, as the reader may recollect, led to many fatal results. It was not, however, suspected that Copper actually exists in the Meat itself, independent of the vessels in which it is cooked. This has been proved by recent analysis of the soups made by the Dutch Company in Paris, in an elaborate report by M. Chevreul to the French Academy of Sciences. He found, most unexpectedly, that a very appreciable quantity of copper existed in a quantity of soup equal to an English quart, the produce of a pound of meat. To satisfy himself that this was not the result of Error, or arising from the vessel in which the analysis was made, M. Chevreul repeated the experiments in vessels of tin, iron, platinum, porcelain, and glass; when copper was constantly found to exist in beef, veal, partridge, the whites and yolks of eggs. The quantity of meat operated upon was always a pound English, which was placed a quart of water; the time of boiling was five hours. The common practice of putting the

meat into cold water, and raising this to boiling, was also proved, by experiment, to be very superior to that of plunging cold meat into boiling water.

# POTATOES AS FOOD.

The economy of Potatoes has been strangely overrated; they are a fit esculent to lower the food of the opulent, and to diminish the consumption of richer viands; but as the sole support of the poor, and a substitute for bread, they are totally inadequate. Man cannot live upon them long in health, whatever may be said of the Irish. Bread replenishes the system, of itself, unaided by flesh meats; whilst the Potato provokes and nurses a desire for ardent spirits; and poor nourishment may drive a whole people into habits of drunkenness.

# PREJUDICES AGAINST EATING PISH,

A CONTEMPORARY tourist (Mr. Leitch Ritchie) observes: there is a peculiarity of taste in certain fishing districts, which makes the people poorer than they need be. the banks of the Scine, for instance, the fishermen are compelled to eat the John Dorys themselves, or else to throw them away; for this fish, so excellent and so wholesome, is not admitted on the tables of the genteel, and, therefore, fetches only a few centimes in the market, In Fugland, we understand good eating better at least in this respect, and very properly place the vulgar John Dory upon a par with the turbot. We should not forget to add, that in some parts of Ireland for instance, in the county of Sligo - the skate is reckoned unfit for human The starving peasant turns away from it with contempt, and, when taken accidentally, either by the rich or poor, it is thrown back into the sea. The same prejudice prevails, to a certain extent, in Scotland; while in London we meet with portions of the elsewhere prescribed, and really excellent fish, at the tables of the opulent."

# CONSUMPTION OF PISH.

THERE is but little Fish consumed in the interior of Great Britain; and even in most sea-port towns the consumption is not very great. In London, indeed, impense quantities of fish are annually made use of; and there can be little doubt that the consumption would be much

greater, were it not for the abuses in the trade, which render the supply comparatively scarce, and in most instances exceedingly dear. All fish brought to London is sold in Billingsgate Market; and, in consequence of this restriction, the salesmen of that market have succeeded in establishing what is really equivalent to a monopoly; and are, in a great measure, enabled to regulate both the

supply and the price \*.

We are inclined to attribute the comparatively small consumption of fish to its disagreement with the system. Fish, in order to be preserved fresh for the market, are allowed to linger and die, instead of being put to death in health, as every living thing intended for food ought to be: this circumstance very much alters its nature and properties as food; and, probably, is one cause why, with some people, fish is said to disagree, by exciting disturbance in the alimentary canal. It is less nutritive than the flesh of warm blooded animals, and, of course, is less stimulant Fish, in proportion to its bulk, may to the circulation. be said to be almost all muscle, and it is readily known if it be in high perfection, by the layer of curdy matter interposed between its flakes. It often happens that those parts of the fish, viz., the pulpy, gelatinous, or glutinous, which are considered the most delicious, are the most indigestible.

#### POISONOUS FISH.

Although Barbel are rejected as a fish not to be eaten, they are, by no means, to be despised, if spitchcocked as eels. The Sea-Bream is also unjustly condemned.

Skate, if fresh, will eat tough: it cannot be kept too long if perfectly sweet. An absurd prejudice prevails with many persons against the skate. The female skate is, however, more delicious than the male.

# OUT-OF-SEASON FISH.

RIVER Fish, out of season and unwholesome, are constantly sold and eaten in London, during March, April, and May; from the purchasers being ignorant that the above are the fencing or spawning months for jack or pike, perch, gudgeon, roach, dace, carp, tench, and all river fish, except trout and cels. Yet, although there is a pen-

alty for taking, having in possession, or exposing for saie, such out-of-season fish, it is daily done in the metropolis, to the great injury of the consumers, and the destruction of the breed of fish, which, if not unlawfully destroyed, would be good, wholesome, and plentiful, from June to the end of the year

Mr. S. Byles, the medical officer of the Whitechapel Union, in his evidence before the House of Commons, attributes much of the disease in Spitalfields to the poor of that district eaving a great deal of coarse bad fish; and, in reply to a question whether fresh fish is a healthy diet, he states it to be so occasionally, but not constantly.

#### FEW FISH FOUND AT SEA,

Paranoxical as the fact may appear, there is no class of persons who eat so few Fish as sailors; and the reason is, they seldom obtain them. With the exception of flying-fish, and dolphins, and perhaps a very few others, fish are not found on the high seas at a great distance from land. They abound most along coasts, in straits and bays, and are seldom caught in water more than forty or fifty fathoms in depth,

#### WHITE-BAIT,

UNTIL lately, White-bait were considered to be the young of the Shad; but, in an article in the Zeological Journal, No. xix, this doctrine is combated by Mr. William Yarrell, F.L.S, who was led to investigate the subject by observing the early appearance (March) of White-bait in a fishmonger's shop; and knowing that Shads, which they were supposed to be, did not make their appearance till much later (May), he took up and persevered in a course of investigation, which lasted from March to August, 1828, The specific distinction between the two fishes, on which he relies as of the greatest value, is the difference of their anatomical character; and especially in their number of vertebræ, or small bones, extending from the back-bone, "The number of vertebræ in the Shad," he states, "of whatever sixe the specimen may be, is invariably fifty-five, the number in the White-bait is uniformly fifty-six; and even in a fish of two inches, with the assistance of a lens, this exact number may be distinctly made out."

#### CRUELTY TO SHELL-FISU.

It has been satisfactorily proved, by the experience of Mr. Saunders, a respectable London fishmonger, that driving pegs into the claws of Lobsters, instead of tying them, is an act of unnecessary cruelty. The custom of boiling Lobsters alive to improve their flavour, is also found to be as erroneous as it is cruel. The best method is before boiling, to deprive the Lobster of life by putting it into fresh water-the hardest pump-water answers bestin which the fish will live but a short time. Lobsters thus dressed have been declared to be improved rather than deteriorated in their quality: the tail will be found to lose much of its hardness and indigestibility; the watery taste is equally common to those dressed in the usual way, which arises from the fish having been sickly and diseased. The preceding observations apply to Crabs, Shrimps, Prawns, &c. The horrible cruelty of dressing Shell-fish alive is the same as if another fish, which does not possess their amphibious property, but soon dies when taken out of the water, were to be instantly conveyed out of its native water either into the flying-pan or the saucepan.

Fish may be crimped nearly as well a few days after death as when alive. A question, however, occurs, why the epicure should give the preference to Fish after it has parted with a considerable portion of its rich and soluble parts in boiling water, as in dressing crimped fish?

# "GREEN OYSTERS."

A vear common and very mistaken opinion exists, especially among foreigners, that not only the Green Oysters from Colchester, but all Fnglish oysters, are impregnated with copper, "which they get from feeding off copper banks;" such we believe, would be quite as injurious to the animal itself as it could be to us, and the fancy can only have arisen from the strong flavour peculiar to this fish. Green Oysters are comparatively little esteemed in the present day.

Oysters have been known to produce various accidents; and, when they were of a green colour, this peculiarity has been generally attributed to the "copper banks." This is

an absurdity, the green tinge being as natural to some verieties of Oysters as it is to a certain fish whose bones

are of verdigris hue.

Some years since, supposed poisonous Oysters were tound adhering to the coppered bottom of a ship in the Virgin Isles; but the occasional accidents among the men that ate them have been referred to other causes. Another report, equally absurd, was that of the fish having gradually quitted the Thames and Medway since coppering ships' bottoms has been introduced. Again, the idea of testaceous mollusca avoiding copper-bottomed vessels, but clinging to those of wood, is equally absurd; for this circumstance is explained by the greater facility with which these creatures adhere to wood.

#### EATING MUSCLES.

WE frequently hear of people being Muscled, as it is termed; and it is generally supposed that the mischief is produced by some specifically poisonous quality in the fish. Mr. Richards, in his Treatise on Nervous Disorders, observes that he has seen many cases, but discovered nothing to confirm this popular opinion. In some instances, only one of a family has been affected, while all partook of the same Muscles. He has known exactly the same symptoms produced by pork, lobsters and other shell-fish, and can attribute them to nothing more than a disturbed state of indigestion.

The vulgar opinion that Muscles are rendered unwholesome by the copper of ships bottoms, is quite untenable. It is, however, conjectured, that Muscles become poisonous from disease, particularly of the liver, or from the intro-

duction of poisonous medusæ into the shell.

It is extraordinary that Muscles should have a poisonous effect on some persons, at certain times, whilst occasionally they may eat them with impunity; and other persons will partake of the Muscles which appear so pernicious in certain states of the system, without any bad effects. It appears to be quite uncertain to what this pernicious property may be owing; it has often caused death. See Orfila, Mochring, Rondeau, Burrows, and Fodere\*.

<sup>\*</sup> Mr. R. Garner, F.L.S.; in Charlesworth's Magazine of Natural History.

#### PUTRIDITY OF MEAT.

UNTIL the experiments of the celebrated Italian physician, Redi, who died in 1697, insects were supposed to be engendered in Putridity, and not by their own species. The correction of this Error first led butchers and housekeepers to guard meats from flies by defending them with gauze coverings. The most important of Redi's experiments was the following:-He put some meat and fish into a large vessel, covered with very fine gauze, which he also put into a large box, covered with the same gauze, that the air might penetrate to the meats while it remained free from the intrusion of insects. On these he did not see a single worm, but frequently saw the little creatures writhing about on the outer gauze, trying to make their way through; and it was with difficulty that he was once quick enough to prevent two of them from falling on the meat, for they had got their bodies half through the inner gauze. He also observed the flies, attracted by the meat, and unable to make their way to it, drop their eggs upon the gauze; some of them alighting upon it, others hovering in the air during the operation; and he perceived that each left six or seven eggs at a time. This was the point he wished to ascertain; and he had now discovered that insects supposed to be engendered by corruption were, in reality, propagated by their own species.

During the course of these experiments, Redi ascertained the curious fact, that when the common day-fly dies, it serves as a nest for its own species equally with any other

kind of dead flesh.

#### CHARCOAL AND TAINTED MEAT.

The common mode of using Charcoal for removing the taint of Meat is utterly ineffective. The meat to be recovered should be first washed extremely well several times in cold water: it should then be put into a large quantity of cold water, and several pieces of charcoal red hot, should be thrown into the water when it is somewhat hot; the boiling must then be continued as long as requisite.

#### LOSS OF MEAT IN COOKING.

That, in whatever way the flesh of animals is prepared, a considerable diminution takes place in its weight, has

long been known; but considerable Error prevails as to the respective less of weight. The following are the results of a set of experiments, which were actually made in a public establishment, not from mere curiosity, but to serve a purpose of practical utility. 28 pieces of beef. weighing 280th, lost in boiling 73th 14 oz. Hence, the loss of beef in boiling was about 201 lb in 100 lb : 10 pieces of beef, weighing 100 lb , lost in reasting 61 lb. 2 oz. The weight of beef lost in coasting appears to be 32 lb. per hundred by 9 pieces of heef, weighing 90 lb, lost in haking 37 lb. Weight lost by beef in baking is 30 lb per 100 lb. 27 legs of mutton, weighing 260 lb., lost in boiling and by having the shank hones taken off, 69 lb. 4 oz. The shank hones were estimated at 4 oz. each, therefore the loss in builing was bath Soz. The loss of weight in hailing legs of mutton is 21th, per 100th. 35 shoulders of multon, weighing 350 th, lost in reasting 100 th. 10 oz. The loss of weight of motion in roasting was 314 lb. per 100 th: 16 loting of mutton, weighting 141 lb., lost in roasting 49 lb. 14 az. Hence loting of mutton lose by ressting about 853 lb, per 100 lb. 10 necks of mutten, weighing 100 lb., last in reasting as ib. 6 oz. From the foregoing statement, two practical inferences may be drawn: 1st, in respect of economy, it is more profusible to bail meat than to roast it. and, Whether we roast or tail meat, it loses by cooking from one third to one-tifth of its whole weight!

# PRESTURED AGAINST DATING MUTTING.

The Antipathy to eat Mutton is a prejudice which can be traced in the carliest history of the she p; to this cause it must be referred, for fourton is of all meat the most wholesmoe. The sheep, however, never seems to have been used generally for human food. Many of the wandering tribes of the Tartars preferred the flesh of the horse to that of the sheep; and, even to this day, the latter is comparatively disliked in Spain t. A prejudice exists against it in America; and in no country does it

4 Philipsychical Magazing

I Dr. Parry, the cartrest and the breef extremets of the Merines, acknowledges that the sarenss of the sheep "Is an object of little or no value in Equity; and that, except with the parcest people, it is not considered at high read." Not many years since, sheep were used as fuel in some parts of South America.

appear to have been so universally adopted and so much relished as in Great Britain; and even here the liking is but of recent growth.

An old English poet sings of the sheep:

Poore beast, that for defense of man at first created wast, And in thy swelling udder burst the inyce of dainty tast; And with thy fleece keep off the cold that would our limbs assaille, And rather with thy lyfe than with thy death doest us availe."

It is somewhat singular that, notwithstanding this seeming prejudice against the flesh of the sheep, all writers on diet have agreed in describing it as the most valuable of the articles of animal food. Pork may be more stimulating; beef, perhaps, more nutritious when the digestive powers are strong: but while there is in mutton sufficient nutriment there is also that degree of consistency and readiness of assimilation which renders it most congenial to the human stomach, most easy of digestion, and most contributable to health.

#### BANSTEAD MUTTON.

The village of Banstead, in Surrey, has long been celebrated for its sheep with short, thick, close fleece, and for Mutton that could delight even a royal epicure. It is not, however, only in the story of by-gone days that we hear Sir Richard Sutton say how the king (Charles II.) loved Banstead Mutton." Many a party goes from London to Banstead in the summer; and whether it is that, rejoicing in their temporary escape from the smoke and turmoil of the city, and delighted with the beauty of the scenery around them, they relish the plainest fare, or that the meat of the small South Down, or heath-sheep, nearly lost in the South Down, retains its wonted flavour, the leg of mutton, with its traditional and never-failing accompaniment, the cauliflower, is as delicious as it was in the days of the Merry Monarch +.

#### DORKING FOWLS.

It is quite a mistake to suppose that the Dorking breed of Fowls have uniformly five toes: in them, the production of two hind toes instead of one is merely accidental: and double hind claws are certainly not peculiar to the Fowls

\* Brewster's Encyclopædia; article, "Aliment."
† Youatt, on Sheep.

bred about Dorking; for five toed Fowls are mentioned by Aristotle, in Greece; by Pliny and Columella, in Rome; and by Aldrovand, in Italy, hundreds of years ago; the breed being then as now reputed good layers. Dorking fowls are of a larger size than the ordinary dunghill fowls, the body long, and the eggs large. The colours are very variable: about Dorking white is most prevalent, and many esteem a white colour to be no less distinctive of the genuine breed than the supernumerary hind claw.

#### BANTAM COCKS.

BOOTED or feathered legs are not exclusively peculiar to Bantams, as is generally supposed; so far from this, that Bantam fanciers, with Sir John Sebright at their head, prefer those which have clean, bright legs, without any vestige of feathers

It is worthy of remark, that the real Bantam Cock, that is, the native East Indian species of that name, is not diminutive, like the little feathery creatures so called in Britain; but is a very large bird, and often tall enough to stand on the floor and peck off a dining-table.

# STILTON CHEESE.

It is usually held, that Stilton Cheese was first made in Lincolnshire, in the parish of Stilton, whence it took its name: but, in point of fact, it was originally made in Leicestershire, where it commues to be produced in the greatest quantity; and derived its name from its being first brought into notice at an inn on the great north road, in the parish of Stilton ..

#### BOILING EGGS.

THE nourishment contained in Eggs has never yet been questioned; but few persons are aware how Eggs lose thus property in cooking. "The yolk of eggs," says Dr. Hunter, "either eaten raw or slightly boiled, is, perhaps, the most salutary of all animal substances. It is taken up into the body of the chick, and is the first food presented to it by Nature after its departure from the shell. It is a natural soup, and in all jaundice cases no food is equal to it. When the gall is either too weak, or, by any accidental

\* Youatt, on Cattle.

means, is not permitted to flow in sufficient quantity into the duodenum, our food, which consists of watery and oily parts, cannot form a union so as to become that soft and balsamic fluid called chyle. Such is the nature of the yolk of an egg, that it is capable of uniting water and oil into a uniform substance, thereby making up for the deficiency of natural bile. When submitted to a long continuance of culinary heat, the nature of the egg is totally changed: so that, when eggs are medicinally used, they should be eaten raw, or but very slightly boiled."

#### STRASBURG PIES.

These celebrated Pies, which are esteemed so great a delicacy that they are often sent as presents to distant countries, are enriched with the diseased livers of geese crammed with fat food, deprived of drink, kept in an extremely hot atmosphere, and fastened by the feet to the shelves of the fattening cribs. It is, however, a mistake to conceive that these pies are wholly made of this artificial animal substance.

#### BLACK GAME.

It is a pretty general opinion, though an erroneous one, that Black Game drive away the red grouse: the two species require very different kinds of cover, and will never interfere. Black game have increased greatly in the southern counties of Scotland and north of England within the last few years.

# SALT IN BUTTER.

A SMALL portion of Salt is invariably used in making what is termed "fresh butter." with the view of keeping it; whereas the butter would keep better without it. All persons are aware that a sufficient quantity of salt will preserve butter for many months, in which case it comes under the denomination of "salt butter;" but, every one is not aware that a small quantity of salt induces to putrefaction in all animal matter;

#### GROWTH OF WHEAT.

OBSERVATION has led to the conviction that much of the time required for the Growth of Wheat might be saved

\*Sir W. Jardine. + Nimrod

by means which have been entirely overlooked. At an average, this may be estimated at ten months, though twelve and even thirteen are not unusual; and eight may be considered as the shortest period for the ordinary winter wheat. By a selection of particular seed, and a choice of peculiar situation, wheat sown early in March has been on different occasions ripened before the middle of August, a period scarcely exceeding five months. This important result, and the means employed in it, were communicated by Mr. S. W. Hall to the British Association, in 1836.

# NOURISHMENT IN BREAD.

THE superior nutritious qualities of Bread have been doubted; but the question has been set at rest in France, by some chemical researches into the comparative nutriment of various edible substances. Messrs, Percy and Vauquelin have ascertained that Bread contains 80 nutritive parts in 100; meal, 34 in 100; French beans, 92; common beans, 89; peas, 93; lentils, 94; cabbages and turnips, the most aqueous of all the vegetables compared, produce only is pounds of solid matter in 100 pounds; carrots and spinach produce 14 in the same quantity; whilst 100 pounds of potatoes contain 25 pounds of dry substance. It must be recollected that the solid parts, when separated from the aqueous or moist parts, may contain a small quantity of extractive or ligneous matter, probably unfit for food; and next, that the same substances do not act uniformly on all stomachs, and are relatively more or less nutritious. But, as a general result, the scientific reporters estimate that one pound of good bread is equal to two pounds and a half or three pounds of good potatoes. The other substances bear the following proportions: - Four parts of cabbage to one of potatoes; three parts of turnips to one idem; two parts of carrots and spinach to one idem; and about three parts and a half of potatoes to one of rice, lentils, beans, French beans, and dry peas.

# THE OAK AND YEAST,

EVILYN was willing to believe anything which did honour to the Oak. Its twigs, he says, twisted together, dipt in wort, well dried, and then kept in barley straw, by being steeped in wort at any future time, will cause it to ferment, and procure Yeast. But the properties of the oak have nothing to do with this; and the bundle, whatever it is, (a furze-bush is commonly used in those countries where the practice is known.) must be dipped in the fermenting and yeasty liquor—it is a mode of preserving yeast dry. See Evelyu's Sylva, a work in which there are necessarily some errors of both kinds, scientific as well as popular; there are likewise many curious things and some useful ones, which have ceased to be generally known.

#### ALUM IN BREAD.

The habitual and daily introduction of a portion of Alum, however small, into the human stomach must be prejudicial to the exercise of its functions, and particularly in persons of a bilious and costive habit. And, besides, as the best sweet flour never stands in need of alum, the presence of this salt indicates an inferior and highly accescent food. The smallest quantity of alum that can be employed with effect, to produce a white, light, and porous bread from an inferior kind of flour, is from 3 to 4 oz. to a sack of flour, weighing 240 pounds. By the avowal of a highly respectable drug-broker, the quantity of alum consumed by bakers in London is ten tons per week.

The hackneyed plea of the London Bakers for introducing Alum into Bread, is to improve its colour to please their customers; but this does not seem to be requisite. Dr. Ure has made many experiments on bread, and has found the proportion of alum very variable. "Its quantity seems to be proportioned to the badness of the flour; and hence, when the best flour is used, no alum need be introduced. That alum is not necessary for giving bread its utmost beauty, sponginess, and agreeableness of taste, is undoubted; since the bread baked at a very extensive establishment in Glasgow, in which about 20 tons of flour were regularly converted into loaves in the course of a week, unites every quality of appearance with an absolute freedom from that acido-astringent drug.

#### POTATOES IN BREAD.

It is well known that Potatoes are often used by bakers in making Bread, and a great popular clamour has been raised against the practice. It is to be observed, however, that when the use of them is confined within moderate limits, there is neither fraud nor injury to the public. Mr. Donovan shows, that 5 stone of potatoes added to 4 cwt. of flour, and made into bread will increase the weight only by about half-a-stone. In this case, the potatoes are added to improve the bread; the small advantage by the increase of weight being scarcely enough to repay the additional trouble which the use of potatoes occasious.

There are, however, bakers who use potatoes with another intention than that of improvement; as well as in much larger quantities than above specified. Bread of this kind will crack and crumble much, and have a dark streak, sometimes a little transparent, running along the

margin of the under crust.

## PATENT BREAD.

It is well known that in the old established way of baking Bread, the steam which arises during the process is allowed to escape, as of no value; but a few years since, accident discovered that this vapour, if condensed, exhibited traces of alcohol, and the collection of it became an object of cupidity and speculation; and this, with some saving of fuel, suggested the formation of a "Patent Bread Company." One of its recommendations was, that bread so made, though kept for any length of time, would not become sour; and this, we understand, is the fact: but how and at what expense is this incorruptibility procured? Sour bread is unquestionably bad; but is not bread which, if kept too long, is liable to become sour, the very article we want? In the new method, the distillation is pushed as far as it can go; the whole product of the fermentation is obtained and collected, so that the residue, or loaf, may be regarded as a caput mortu m, incapable of undergoing further change; but is it not rather unluckily deprived, at the same time, of its saccharine principle-in short, of all nutritive property +?

### FRENCH BREAD.

WE hear much in England of French bread; and those who visit France for the first time usually conceive high notions of its excellence: but this expectation is sure to be disappointed; for to one who has been accustomed

either to the bread of the London public bakers, or to the wholesome household bread baked in the country, nothing can be more insipid than the white saltless bread made throughout the greater part of France. The reason why French bread is baked without salt is satisfactory; there being a duty of eight sous per lb upon salt: the same reason operates in preventing salt being put into butter; but this want, if felt to be a want, is capable of being supplied, whereas the fault in the bread is irremediable.

#### PATNA BICE.

THE London traders, who recommend their Rice as the true produce of Patna, are in Error in vending the grain of superior quality under that name. Rice is chiefly grown in the low marshy tracts of Bengal, and is not extensively cultivated any where else †.

It has been suggested that, in a scarcity of corn, Rice may be in part substituted for it in the making of bread; but the scarcity must be very great to make that an economical expedient in this country, where Rice is sold

at so high a price.

#### NOURISHMENT IN RICE.

Bishop Heber thinks erroneous the common opinion that Rice is a nourishing grain. On the contrary, the Bishop, when in India, was convinced that a fourth part of the Rice of one meal in bulk of potatoes would satisfy the hunger of the most robust and laborious. Potatoes are becoming gradually abundant in Bengal; at first, they were there, as elsewhere, unpopular. Now they are much liked, and are spoken of as the best thing which the country has ever received from its European masters.

# THE PUREST WATER.

HARD Water is generally considered to be purer than that which is soft. Sir Humphry Davy, however, states that the purest water is, undoubtedly, that which falls from the atmosphere. Having touched air alone, it can contain nothing but what it gains from the atmosphere; a d in its descent it is distilled, without the chance of those impurities which may exist in the vessels used in an artificial operation.

\* Inglis's Tour.

† Miss Roberts's Scenes and Characteristics of Hindostan.

#### WATER IN LARGE TOWNS.

Ir might be expected that a river which has passed by a large town, and received all its impurities, and been used by dyers, tanners, hatters, &c., that crowd to its banks for the convenience of plenty of water, should thereby acquire such foulness as to be very perceptible to chemical examination, for a considerable distance below the town. But it appears, from the most accurate examination, that where the stream is at all considerable, these kinds of impurity have but little influence in permanently altering the quality of the water, especially as they are, for the most part, only suspended, and not truly dissolved; and therefore, mere rest, and especially filtration, will restore the water to its original purity.

## SNOW-WATER

Has long lain under the imputation of occasioning goître, or those swellings in the neck, which deform the inhabitants of many of the Alpine valleys. But this opinion is not supported by any well authenticated indisputable facts, and is rendered still more improbable, if not entirely overturned, by the frequency of the disease in Sumatra, where ice and snow are never seen, and its being quite unknown in Chili and Thibet, though the rivers of the latter countries are chiefly supplied by the melting of the snow with which the mountains are covered.

## SPURIOUS SODA WATER.

Most of the beverage sold as Soda Water is improperly named; it should rather be called effervescing water, for it has not a particle of roda in it: it is merely water with carbonic acid forced into it by using mechanical pressure, as that of a condensing syringe or a powerful force-pump. The water by this treatment will effervesce violently when poured out; have a brisk, agreeable, acerb taste; and, although in other respects an acid, is not sour. If a little soda had been dissolved in the water previously to its impregnation, the result would be pure Soda Water.

#### THANES WATER.

An undue preference has, for more than a century, been given to the Water of the Thames for Brewing. Sir Jonas More, (or Moore,) Ordnance Surveyor in the reign of Charles II., and one of the earliest Fellows of the Royal Society, in a little work which ran through many editions between 1703 and 1721, under Directions for Brewing, observes that "the Thames water, taken up about Greenwich, at low water, where it is free from all brackishness of the sea, and has in it all the fat and sullage from the great city of London, makes very strong drink." This water has long been in high repute for sea stores; but Sir Jonas strangely overrates its qualities, when he says: "it will of itself alone, being carried to sea, ferment wonderfully, and after its due purgations, and three times stinking, (after which it continues sweet,) it will be so strong, that several sea commanders have told me it would burn, and has often fuddled their mariners. Other commanders have deny'd this, which I thought I had reason to impute to their want of observation .

## WATER NEAR CHURCHYARDS.

Springs in the vicinity of Churchyards are commonly reputed to yield "the best water." Yet, they are often contaminated so as not to be fit for use, by containing various impurities of organic origin, sometimes in very sensible quantities. These are derived from the churchyards; such being the situation generally chosen for the parish pump. "This disgusting source of water should at all events be avoided, and the disgraceful system of burying

\* The Water of the Thames is, however, of excellent quality; although it has neither the fat nor intoxicating properties which our F.R.S. attributes to it. The impurities which the river receives from the soil through which it flows, and from the drainage from the respective towns and villages on its stream, are so largely diluted by upland water, as to be partly deposited and partly diffused through the volume, until the river reaches London, where, the adulteration increasing, filtration is requisite; after which the Thames water is even purer than that procured immediately from a spring. The adulterating matters are also, in some measure, decomposed by the vegetation at the bottom and sides of the Thames; a fact of great importance, and first explained by Professor Brande, who had satisfactorily proved that the water in ponds and rivers is rendered more pure by the vegetation of aquatic plants, which absorb carbonic acid, and yield oxygen gas; although the reverse had long been held to be the case.-Anonymous Pamphlet, 1840.

the dead in the streets of London should be authoritatively discontinued. It is not only repulsive, but dangerous as a source of infection. The casual observer is not aware of the extent of this evil, and of the extraordinary heaps of bodies, which, in many of the London churchyards, lie just beneath the surface. St. Clement's, in the Strand, is a fair average specimen; but there are many infinitely worse: and all those churchyards which are raised considerably above the streets, such as St. Bride's, St. Andrew's, and others, are entire formations, as a geologist would say, of bones, bodies, and coffins, in different states of decomposition."

### FORCED FRUITS.

Forced Fruits realise a high price from the early period at which they are brought to market, and not from superiority of size or flavour, as their dearness leads many persons to imagine. Indeed, Forced Fruits are very inferior to those of natural growth: the former are obtained at a season when there is little light, whereas the latter are matured in the full blaze of a summer's sun. Thus, melons grown in frames, covered with mats, and carefully excluded from the influence of that solar light which is indispensable to their perfection, have, whatever may be their external beauty, none of that luccious flavour which the melon, when well cultivated, possesses so eminently.

Our moralists have not overlooked this Error. La Bruyère says: "There are miseries which wring the very heart: some want even food; they dread the winter; others eat forced fruits; artificial heats change the earth and seasons to please their palates." Hume thus refers to this false taste of the rich: "The same care and toil that raise a dish of peas at Christmas, would give bread to a whole family during six months."

## RIPENING FRUITS.

A DRY summer is not the only requisite for the Maturation of Fruit, as is commonly supposed; for if the dry weather be followed by rain just before the keeping fruit ripens, the rain will surcharge the juices with water, and consequently induce premature decay. The same effect every farmer knows is also produced on bread corn, potatoes, and roots, as well as, to a certain extent, upon hay and straw; and doubtless also, upon coppies wood and

<sup>\*</sup> Brande's Manual of Chemistry.

basket willow. A sort of second sap seems to have come into many trees from the same cause, which, though it has not produced shoots, yet the leaves, instead of falling off at the usual time, (though they have become black with the late frosts,) still adhere.

# NAMES OF APPLES.

In Apples, a greater confusion of names exists than in any other description of fruit. This arises not so much from the great number of varieties which are grown, as from the number of growers, some of whom seek to profit by their crops alone, regarding but little their nomenclature. Nurserymen, who are more anxious to grow a large stock for sale, than to be careful as to its character, are led into Error by taking it for granted that the name of a fruit they propagate is its correct name, and no other; hence arises the frequency of so many of our fruits being sold under wrong names.

## THE GOLDEN PIPPIN.

THE Golden Pippin, one of the most celebrated and esteemed apples of this, or perhaps any other, country, has been considered by some of our modern writers on pomology to be in a state of decay, its fruit of inferior quality in comparison with that of former times, and its existence near its termination. Mr. Lindley, in his Guide to the Orchard and Kitchen Garden, says: "I cannot for a moment agree with such an opinion, because we have facts annually before our eyes completely at variance with such an assertion. Any person visiting Covent Garden or the Borough markets, during the fruit season, and indeed any other large market in the southern or midland counties of England, will find specimens of fruit as perfect and as fine as any which have been either figured or described. In favourable situations, in many parts of the country, instead of the trees being in a state of rapid decay, they may be found of unusually large size, perfectly healthy, and their crops abundant; the fruit perfect in form, beautiful in colour, and excellent in quality."

#### CODLINS.

THE deterioration of this apple is referable to an Error for orchardists in its culture. The customary method, of

\* Lindley.

at least 150 years, has been to raise the trees from suckers, and truncheous, as they are called; and in every old garden where they are found, they are diminutive, ill-formed, unproductive, and full of disease; incrusted, as it were, root and branch, with the greatest of all pests, the aphis lanigera; in consequence of which the fruit exhibits scarcely anything of its original character. Healthy, robust, and substantial trees, are only to be obtained by grafting on stocks of the real sour hedge-crab; when they grow freely, erect, and form very handsome heads, yielding fruit as superior to those of our old orchards, as the old, and at present deteriorated, codlin is to the crab itself\*.

## SCARCITY OF MEDIARS AND QUINCES.

THESE fruits have become comparatively scarce, from an erroneous view of their cultivation, which has led to their neglect. The Medlar, as well as the Quince, may very safely be planted out in the orchard, without any fear of their degenerating the fruit of either the apple or the The idea entertained by some that this would be the case is perfectly absurd, as there can be no deterioration or degeneracy of the existing fruit, through the impregnation of these or other inferior species. The effect produced through impregnation must appear in the rising generation, not in the present one: we might as well expect a degeneracy in animal species by a cross impregnation with each other, as that the apples and pears now growing in our orchards should have degenerated, simply because Medlars and Quinces had been planted in the same orchards. Yet we find a caution given to gardeners to "plant medlars and quinces at a proper distance from apples and pears," both by Mr. Forsyth, and by John Abercrombie, sixty years a practical gardenert.

## NORFOLK BIFFINS.

THE name Biffin, or Beefin, is corrupted from the Beaufin, a Norfolk apple of great merit. Many thousands of these apples are dried by the bakers in Norwich annually, and sent in boxes to all parts of the kingdom.

### POISONOUS PLANTS.

Before certain Plants are condemned as poisonous, the season of the year at which they are so should be taken \* Lindley. † Lindley.

into consideration, which is not generally the case. Many vegetables may be eaten with impunity at the spring of the year, which will act with considerable energy upon the system in the autumn. In young plants, we find in the spring a mucilaginous principle, nay, some of the most poisonous abound in this mucilage; but, as vegetation advances, new principles are developed, fresh powers are obtained, and they exhibit their peculiar characteristics. The dandelion exhibits such properties: it may be eaten when young, but, at other times, is a powerful medicine: rhubarh is another illustration.

Sorrel (l'oscille) is a favourite item in French cockery; but it may reasonably be questioned whether it is not one of the most poisonous of all disguises for food, as it con-

tains a considerable quantity of oxalic acid.

## BOILING VEGETABLES.

WHEN Peas. French Beans, and other legumes, do not boil easily, it has been imputed to the coolness of the season or to the rains. This popular notion is, however, erroneous. The difficulty of boiling the vegetables soft arises from their imbibing a superabundant quantity of gypsum during their growth. To correct this, throw a small quantity of sub-carbonate of soda into the pot along with the vegetables, the carbonic acid of which will seize upon the lime in the gypsum, and free the legumes from its influence\*.

#### MEALY AND WAXY POTATOES.

An examination of the Potato with a microscope has, at length, proved the relative worth of the Mealy and Waxy kinds of this useful vegetable. On examining a thin slice, it is seen to be almost entirely composed of cells, which are sometimes filled with, and sometimes contain clusters of, beautiful little oval grains. These grains remain unchanged in cold water; but when it is warmed they dissolve in it, and the whole becomes a jelly, and occupies a larger space than it did in the form of grains. potato is boiled, then each of these cells of which it is composed becomes a little vessel full of jelly; and, if there be not a great quantity of starch in the cells, it may be gelatinized without bursting them. But, if the number of grains or their size be very great, the cells of the potato

<sup>\*</sup> From the French.

are broken on all sides by the expansion of the little masses of jelly, and the appearance of mealiness is produced. Hence we see that Mealy Potatoes are the most valuable, and Waxiness denotes a deficiency of starch or nourishing matter.

## POTATO-PLOUR.

Notwithstanding all that has been written on the substitution of Potato for Wheat Flour, it must be remembered that the farina of potatoes is nothing but pure starch; whereas the principal ingredient of common flour is gluten, of which wheat contains a larger proportion than any other grain.

## SPURIOUS WATER-CRESSES.

A dangerous plant, the water-parsnip, grows in close companionship with the Water-cress, and, when not in flower, so nearly resembles that plant as to have been frequently mistaken for it. The water-cress is of a darker green and sometimes dashed with brown; the leaflets are of a rounder form (more especially the odd one at the end, which is larger than the rest), and their edges are irregularly waved. The water-parsnip is of a uniform light green without any tinge of brown; the leaflets are longer and narrower than those of the water-cress, tapering at each end and notched at their edges. The best way to become acquainted with the difference, and to obtain a confident knowledge of the two plants, is to examine them in the month of July, when the flowers of both are present, to decide between them.

#### SAGN.

Was formerly in much repute for its medicinal properties, but its virtues are now lowly rated. Now, there are seventy sorts of sage, and perhaps this mistrust is owing to our not using the same sort as our forefathers. Three sorts are used: 1, the garden sage; 2, the red sage; and 3, the wood sage, which grows naturally. The latter is chiefly recommended for boiling as an excellent remedy for debility of the stomach, and with alum as a gargle for a sore throat.

#### THE JERUSALEM ARTICHOKE

PRESENTS, in its name, a strange perversion of terms; it being corrupted from its Italian name. Girasole Articiocco, sun-flower artichoke, as the plant was first brought

from Peru to Italy, and thence propagated throughout Europe. The term artichoke is applied from the resemblance in the flavour of the roots to that of the common artichoke.

The name of this plant, undoubtedly, arose from a weak notion that any one unlucky enough to get a certain portion of it into their throat must certainly be choked. This dangerous portion is called the choke, and consists of the unopened florets or the bristles that separate them from each other.

## SCARLET RUNNERS.

The Scarlet-runner has been stated by gardeners, who have written books on Gardening, and by several botanical authors, to be an annual, whereas it is a perennial plant. Its roots are tuberous, similar to those of the dahlia, and, like that, may be preserved through the winter by the same means; when, if planted out in April, they soon make their appearance above ground and produce, for the second time, an early and abundant crop. This bean was formerly cultivated less for its fruit than for the beauty and durability of its blossoms, which ladies put into their nosegays and garlands. Miller brought it into general use for the table; and because it has been found so useful, persons seem to think it can no longer be ornamental, which is surely a vulgar mistake\*.

## EDIBLE MUSHROOMS.

The confused notions which most persons have respecting the distinction of Edible and Poisonous Mushrooms, has led to fatal consequences. The following indications may, therefore, in some degree, serve to correct the evil. Whenever a fungus is pleasant in flavour and odour, it may be considered wholesome; if, on the contrary, it have an offensive smell, a bitter, astringent, or styptic taste, or even if it leave an unpleasant flavour in the mouth, it should not be considered fit for food. The colour, figure, and texture of these vegetables do not afford any characters on which we can safely rely; yet, it may be remarked, that in colour, the pure yellow, gold colour, bluish pale, dark or lustre brown, wine-red, or the violet, belong to many that are esculent; whilst the pale or sulphur-yellow, bright or blood-red, and the greenish.

\* Flora Domestica.

belong to few but the poisonous. The safe kinds have most frequently a compact brittle texture; the flesh is white; they grow more readily in open places, such as dry pastures and waste lands, than in places humid, or shaded by wood. In general, those should be suspected which grow in caverns and subterraneous passages, on animal matter undergoing putrefaction, as well as those whose flesh is soft or watery.

## PLANTS IN ROOMS AND LARGE TOWNS.

It is in vain to suppose that Plants will flourish in Rooms. They must necessarily be deficient in the three important auxiliaries to vegetable life, light, air, and moisture; the latter of which cannot be maintained in apartments that are daily occupied. In Large Towns, plants cannot thrive even in the open air, as the minute particles of soot, which are constantly floating about, settle upon their leaves, and choke up their pores. The gases produced by the combustion of coal, &c., are also injurious to plants. Sulphurous acid, which abounds in the atmosphere of London, turns the leaves yellow; and the want of evaporation and absorption by the leaves, prevents the proper elaboration of the sap, and makes plants and trees stunted and unproductive.

#### ODOUR OF FLOWERS.

THE idea that Perfumes of Flowers, believed to be universally delightful, should offend certain perceptions, is often held up to ridicule and unbelief. But the following observations furnish evidence to correct this common Error. They occur in Sir James Smith's valuable Elements. He describes himself as peculiarly affected by honeysuckles, which, however grateful in the open air, affected him in the house with violent pains in the temples, soon followed by sickness, and a partial loss of recollection. Yet the equally delicious and very similar fragrance of the Butterfly Orchis afforded him pleasure in the closest apartment. He could not perceive the scent of Iris Persica, though some find it extremely pleasant. Its flowers, nevertheless. affected him in a room almost to nausea and suffocation. The White Lily, Mezereon, Lilac, and Peruvian Heliotrope, with many other scents delightful in the open air,

\* Brande's Journal.

were poison in the house; and he had seen a strong healthy man greatly distressed by one Carnation which had fallen down, and remained concealed by a piece of furniture, in a spacious airy drawing-room. It may be asserted, as a general rule, that plants of the same genus, or natural order, produce, by the odour of their flowers, a similar effect upon the same person. But this effect often varies in degree, according to any person's state of health. blossoms of the Portugal Laurel, when abundant, exhale, in Sir James's opinion, a nauseous fœtor, which, in some of the same tribe, as hawthorn, is not too strong to be agreeable, partaking of an almond flavour. In a very different flower, Bolemonium Cæruleum, a similar odour, though generally not very remarkable, has proved, during illness, quite intolerable in a room. Sir James concludes by observing, that roses are universally acceptable, and scarcely noxious to anybody; but, perhaps, the odours of the various kinds of Stapelia, imitating carrion, rotten cheese, and foul water, may be better suited to the taste of the Hottentots, in whose country those singular plants abound. A botanist of Sir James's acquaintance could perceive no scent in any flower whatever.

#### KEEPING BEES.

It has been the custom, from time immemorial, to rub the inside of the hive with salt and clover, or some sweet-scented herb, previously to putting a swarm of Bees into the hive. This practice, which is thought to be serviceable to the Bees, is disadvantageous to them; for it gives them unnecessary labour, as they will be compelled to remove every particle of foroign matter from the hive, before they begin to work. Equally reprehensible is the vile practice of making an astounding noise with fire-pans, kettles, &c., when the Bees are swarming. It may have originated in some ancient superstition, or it may have been the signal to call aid from the fields, to assist in the hiving. If harmless, it is unnecessary; and everything that tends to encumber the management of Bees should be avoided.

#### MELTING SNOW WITH SALT.

Persons are in the habit of sprinkling Salt upon Snow before their doors. They could not do a more silly or injurious thing. The result is, to change dry snow or ice at the temperature of 32° to brine at 0. The injurious effect of damp upon the feet at this excessive degree of cold is likely to be extreme. If, then, any one does sprinkle salt upon snow in the street, he ought to feel it a matter of conscience to sweep it away immediately \*.

#### NUTRIMENT IN SUGAR.

THE Nutritive Properties of Sugar are much underrated in this country. As an aliment, Dr. Rush, of Philadelphia. maintains that Sugar affords the greatest quantity of nourishment, in a given quantity of matter, of any subject in nature. Horses and cattle were fed wholly on it at St. Domingo for some months, when the exportation of Sugar and importation of grain were prevented from want of ships. During the crop-time in the West Indies, all appear fat and flourishing. The cattle fed on the cane-tops become sleek, and in a fine condition. The negroes drink freely of the juice, and become fat and healthy. George Staunton observes, that many of the slaves and idle persons in China hide themselves among the canes, and five entirely on them for a time. In that kingdom, the Emperor compels his body-guard to eat a certain quantity of Sugar every day, that they may become fat, and look portly. Sugar and rice constitute the common food of the people, and every kind of domestic animal is fed on Sugar. Plagues, malignant fevers, and disorders in the breast, are unknown in the countries where Sugar is abundantly caten as food. The celebrated Dr. Franklin used to drink syrup every night before he went to bed, to alleviate the agonies of the stone. In short, Dutrone with all the vivacity of a Frenchman, burst into a rhapsody on the excellence of Sugar. He not only panegyrises it as the triumpher over seasons and climates, in enabling us to assemble at our tables the fruits of every season and country; as the softener of asperities; the delive of confectionary; the seductive charm of liqueurs; but he would exalt it as the panacea of life, the invigorator of infancy, the restorer of sickness, the renovator of old age. invites the brewer, the baker, the vintner, to prove its beneficial influence in their several arts. He calls upon the apothecary to acknowledge its aid in compounding medicine; and he recommends the surgeon to lay aside his unctuous plasters, and to apply saccharine lentives.

<sup>\*</sup> Paraday.

## SUGAR AND THE TEETH.

To disprove the assertion of Sugar injuring the Teeth, let those who make it visit the sugar plantations, and look at the negroes and their children, whose Teeth are daily employed in the mastication of Sugar; and they will be convinced of the absurdity of the statement.

## ECONOMY IN SUGAR.

EXPERIMENT has proved that half-a-pound weight of refined Sugar will give more sweetness than one pound of raw or moist Sugar, besides the improved purity and delicacy of the liquid sweetened. This is especially the case in sweetening coffee.

## ANTIQUITY OF TEA.

THERE is reason to believe that Tea is not of very ancient use as a beverage in China. The ancient classical books make no allusion to it. Silk, flax, and hemp, are classical plants; but cotton, tobacco, and tea, are not. Pere Trigault, the Jesuit, says, the use of Tea is not of great antiquity; but, he adds, they have no character to represent it, which is not true. The popular belief is, that Tea was first introduced into Honan to cure the bad quality and taste of the water. The earliest account we have of it is in the relation of Mahommedan travellers, who visited China in the ninth century. These, after telling us that "their usual drink is a kind of wine made of rice," mention a certain herb, which they drink with hot water, called sah (tiha, tea), adding, that "this drink cures all manner of diseases." It was not, therefore, at that time a common beverage. Be that, however, as it may, we are inclined to think it is a mistake to suppose that the Chinese are intolerably attached to the use of Tea. That which is used for home consumption is of a very inferior description, made up sometimes into round balls, having all the appearance of a ball of tarred twine; sometimes in flat cakes, cemented together with a glutinous substance, and sometimes used in loose leaves that have been dried without any preparation. They have, besides, the essence in small cakes, as bitter as wormwood. The leaves of the Camellia Sesangua are also used as Tea; and we learn from the Abbé Grozier, that in Shantang, and the northern

provinces, Tea is prepared from a kind of moss; and, he asks, if adulterated Tea is common in China, how can we flatter ourselves that we are not drinking the infusion of moss from the rocks of Mang-nig-hien \*?

#### LOCALITIES OF THE TEA-PLANT.

Ir is an Error to suppose that the Tea-plant is altogether the production of a low latitude, as China. On the contrary, various specimens seem to be cultivated far to the north, and at considerable elevations, in that country, is, therefore, reasonable to suppose that it might be cultivated to an unlimited extent in Europe; or, why might we not produce it in our numerous colonies, possessed of every variety of climate? In Prince of Wales's Island it has long been introduced, and it is known that there is no difficulty in raising it. In almost every part of Hindostan, therefore, the Tea plant might be grown. Nay, there is reason to believe that species of it might be grown in Great Britain, as easily as some of our most common It is said to have been planted in Breconshire about 1000 feet above the level of the sea, where it endured the winter. We suspect, however, that our ignorance of the modes of drying and preparing Tea operates more as an obstacle to its culture here than ungeniality of climate: to which may be added, the higher price of labour in England than in China.

#### VARIETIES OF TEA.

Certain botanical writers have stated that Black and Green Tea are produced from the same plant, merely by difference in the times of gathering, curing, &c. Mr. Murray, however, observes, in the Gardeners' Magazine, that "the Green Tea can, by no modification whatever, either of culture or clime, be obtained from the same plant that yields the multiform varieties of Black Tea from inferior Bohea, through Congou, up to Pekoe, and Padre Souchong. The fact is, Green Tea and Black Tea are chemically different; by acting on Green Tea by means of boiling alcohol I have dissolved resin, vegetable wax, and the green matter of the leaf. The leaves by this treatment become black, and do not unfold. An officer of high rank in India informed me that, when his camp was visited by

<sup>\*</sup> Quarterly Review .

Tartar tribes, they were surprised at the Black Tea then used, which they had seen for the first time, Green Tea being that alone cultivated by and used among them."

## ADULTERATION OF TEAS.

THE deceptions practised in the Tea-trade have long been a subject of great complaint and great notoriety, and frequent complaint; but some of those persons who have written most vehemently against tea-dealers have, singularly enough, promoted their schemes by giving recipes for the art of mixing one quality of Tea with another, and entering into minute rules for improving indifferent teas, by the addition of the more highly-flavoured qualities. These writers have stated that Pekoe is seldom agreeable to tea drinkers alone, and recommend that one ounce of Pekoe should be added to a pound of Souchong. Souchong or Congou may be improved by such means there can be no doubt; but those who have been in the habit of taking good Pekoe would never think of such a mixture. It is, when used unmixed, delicious: it must, however, to be fairly judged of, be tasted without sugar, or with the smallest possible quantity, and likewise without milk\*.

Before, however, we blame our merchants and dealers for the adulteration of teas, we should recollect that the character of the Chinese is not distinguished by honesty or fair dealing, and that they are extensive adulterators of A few years since it was discovered that the Teas were frequently mixed by the Chinese with iron dust, or an earthy detritus strongly impregnated with iron, which made the article weigh heavier, but was no improvement The test contrived for the to the contents of the tea-pot. detection of this was a powerful magnet, which, being stirred about among the leaves, came out incrusted with the detritus in question. We also learn from Mr. John Reeves, one of the East India Company's inspectors at Canton, that the Chinese convert genuine Black Tea into Green—a trick which he represents to be practised to a considerable extent.

## QUALITY OF TEA.

THE main article of export from China to Europe and America is Tea, and the grand Error in all the continental nations has been, in supposing that mere importations of

<sup>\*</sup> Dr. Sigmond, on Tea.

the leaf without regard to quality, were all that was necessary to ensure consumption; forgetting that Tea is an article introduced by fashion, and upheld by custom from its refreshing qualities. In England, the successful extension of the consumption has been solely owing to the quality having been always kept up as high as possible; in other countries, such a prudent measure was neglected, and the result has been, that in some countries, where the people formerly used several millions of pounds yearly, they do not now consume as many hundred weights.

There is one irremediable circumstance which will ever prevent Tea being drunk in perfection in England: that is, the sea-voyage, which deteriorates all Teas, and causes

them to lose their strength, freshness, and flavour.

### VINE TEAS IN CHINA.

ALTHOUGH Tea is grown in many parts of China, as the vine is in France, it, like the latter, is dependant on soil and climate. A coarse Tea, of a very inferior character, is grown for the use of the population of China. quantity consumed by each person is generally very small, its use being economised wonderfully, by putting the Tea into the tea pot in the morning, and keeping it warm throughout the day, by a contrivance which forms a stratum of non-conducting air between the two vessels that contain it. Again, the spots which produce fine Teas, like the spots which produce fine wine, are exceedingly limited; and the natives are the better enabled to drink teawater, in consequence of the cheapness of the coarse herb which has not the usual export-tax of threepence per pound levied on it by government on shipment. Chinese drink much wine at their convivial meetings, and Tea is only introduced, as it is among us, at the end. On these accounts, therefore, it is an Error to suppose that the Chinese are so well supplied with Tea as ourselves.

# HIGH PRICE OF TEA IN ENGLAND.

It has been said that Tea is cheaper in America and continental Europe, than in England; but it has been also shown, that the price of any denomination of tea is no proof whatever of the relative dearness or cheapness of tea in the two countries. In fact, the denominations of teas

\* Parliamentary Evidence.

can be no guide whatever with respect to the value of teas. There is as much difference between the quality of Teas of the same denomination, as there is between wine sold at a tavern, and that drunk at a gentleman's table, although they are both called sherry or madeira. This testimony is by M. Joshua Bates, an American merchant trading

extensively with China.

Lowness of price and cheapness are ordinarily confounded, especially in purchasing Tea. But Mr. John Reeves, in his evidence before a committee of the House of Commons, founded on an experience of twenty years, as East India Company's Tea Inspector at Canton, states, that "the lowest-priced teas are dearest to the consumer, and that the cheapest tea to drink is 'the back-bone' of tea, which could scarcely be retailed under six shillings per pound: this tea will yield two liquorings, while the strength of common tea is expended in the first water."

#### KEEPING TEA.

It is alleged that Tea is injured by being kept too long in England; but this assertion is disproved by experience and facts: for it is well known that good black tea is kept in China, like wine, and improved by age; and the London brokers maintain, that common black teas are decidedly improved by keeping, in a proper place, even if for only two years; that even the common sorts of teas are better liked by the public, when kept, than they would be if fresh; they used not to be, but they are now. Common green tea is not much altered; but black tea gets stronger, and common bohea, if kept for more than two years, will sell for a higher price than if fresh.

Neither the Chinese nor natives of Japan ever use Tea before it has been kept at least a year; because, when fresh, it is said to prove narcotic, and to disorder the

drinker.

# CONSUMPTION OF TEA IN ENGLAND.

Considerable Error prevails respecting this subject; for, however unfair it may be to compare the consumption of Tea in England with other articles which are procurable from a great variety of countries, and which either support animal life or are used in a variety of ways (as

<sup>\*</sup> Evidence of Tea-brokers, before Parliament.

sngar), or which, from being greater stimulants, require to be annually augmented in quantity, such as wine, tobacco, &c.; yet we do not find that tea has augmented in consumption, increased the revenue to a greater extent, or lessened proportionally more in price than any other article which enters largely into the comforts of the people\*.

## GREEN TEA.

THERE was once an idea prevalent that the colour of the Green Tea was to be ascribed to the drying of the leaves on copper: but nothing can be more unfounded than such an opinion; as the pans, one of which was sent home by an officer of the East India Company, are of That copper may be detected in tea is true; but Bucholz has shown that it exists in several vegetables; indeed, there are proofs that it enters into the composition of a great proportion of animal and vegetable matterf. It is found in coffee in very striking quantities; from ten ounces of unroasted coffee there may be obtained, by the proper manipulations, a dense precipitate, which will coat two inches of harpsichord wire with metallic copper. And he who eats a sandwich has much more to fear from the poisonous effects of this metal than the drinker of Green Tea; for, the two slices of bread, the beef, and the mustard, all have been proved, by the examination of the chemist, to be capable of forming in the stomach a metallic crust; indeed, the only safe food would be potatoes, for in three pounds no copper could be tracedf.

But, if there were any foundation for this supposition, volatile alkali mixed with an infusion of such tea would detect the least portion of copper by turning the infusion blue! Now, the finest imperial and bloom teas show no signs of the presence of copper by this experiment. Others, and among them Boerhaave the celebrated physician, have, with less propriety, attributed the verdure to green copperas; but this ingredient, which is only salt of iron, would immediately turn the leaves black, and the infusion made from the tea would be of a dull purple colour. Sir George Staunton informs us that it is confidently said in China that tea is never dried upon plates

<sup>\*</sup> Parliamentary Evidence.

<sup>†</sup> See " Copper in Meat," page 43 of the present work.

<sup>†</sup> Dr. Sigmond, on Tea.

of copper; the chief application of this metal being for coin.

Dr. Lettsom, in his valuable pamphlet on the Tea-plant. asks: "Is it not more probable that some green dye, prepared from vegetable substances, is used for the colouring?"

## EFFECTS OF TEA.

THE Effects of Tea on the human frame have been considerably overrated. They are those of a very mild narcotic, and, like those of many other mild narcotics taken in small quantities, they are exhilarating. The green varieties possess this quality in a much higher degree than the black; and a strong infusion of the former will, in most constitutions, produce considerable excitement and wakefulness. Of all narcotics, however, Tea is the least pernicious; if, indeed, it be so in any degree, which we very much doubt\*.

# THE COFFEE "BERRY."

COFFEE, such as we use daily, is not a berry, but the seed of a berry, which lies naked in the pulp. In the best wild Arabian coffee, only one seed is usually perfected, which is known by its round form; while the West Indian plantation coffee has two in each berry, both flattened on one side. It would, therefore, be as incorrect to call the seed of an orange a berry as it is so to distinguish coffee.

The refreshing properties of coffee have not been overrated; for chemists have proved it to contain much nitrogen; and its active principle, termed caffeine, is exhilarating in doses of four or five grains.

# "TURKEY COFFEE."

From the great consumption of Coffee in Turkey, it is generally supposed to be cheaper there than in England; and the name, Turkey coffee, would lead many persons to conclude this kind to be grown in Turkey. It is, however, brought from Mocha, on the Red Sca. A considerable portion of the coffee consumed by the Turks is obtained from our West India plantations; and Arabian, or Mocha, coffee is dearer in Turkey than in England.

## HOASTING COFFEE.

Corres in this country is rarely well reasted; and in this consists its chief excellence. Dr. Mozeley long since observed t" the roasting of the berry (!) to a proper degree requires great nicety; the virtue and agreeableness of the drink depend upon it; and both are often injured by the ordinary method. Hernier says, when he was at Cairo. where coffee is so much used, he was assured by the best judges that there were only two people in that great city who understood how to prepare it in perfection. If it be underdone, its virtues will not be imparted, and in use it will load and oppress the stomach; if it be everdone, it will yield a flat, burnt, and bitter taste, its virtues will be destroyed, and, in use, it will heat the body and act as an astringent." The desirable colour of roasted coffee is that of cinnamon. Coffee seeds readily imbibe exhalations from other bodies, and thereby acquire an adventitions and disagreeable flavour. Sugar placed near coffee will. in a short time, so impregnate the berries as to injure their flavour. Dr. Mozeley mentions that a few bags of pepper, on board a ship from India, spoiled a whole cargo of coffee. And this has been assigned as a reason of the inferiority of that coffee which is imported from the European plantations.

# enteanés is corres.

The adulteration of Coffee with Chicoree has been commonly mistaken for an improvement.—In the Netherlands, servants loudly object to their coffee being too highly saturated with this weed; and when settling for wages they frequently ask: "Mais, madame, combien de chicorée dans le cufi ?"

#### MARING COFFERS

Coffee, as very commonly prepared, by persons unacquainted with its nature, is a decection, and is boiled for some time, under a mistaken notion that the strength is not extracted unless it be boiled. But the fact is just the reverse. The fine aromatic oil which produces the flavour and strength of the coffee, is dispelled and lost by boiling; and a mucilage is extracted at the same time, which also tends to make it flat and weak. The best modes are, to pour boiling water through the coffee in a biggin or strainer,

which is found to extract nearly all the strength; or, to pour boiling water upon it, and set it on the fire, not to exceed ten minutes. The Turks and Arabs boil the coffee, it is true; but they boil each cup by itself, and only for a moment, so that the effect is, in fact, much the same as that of infusion, and not like that of decoction. They do not separate the coffee itself from the infusion, but leave the whole in the cup.

## PREJUDICES AGAINST COFFEE.

THERE are many prejudices against Coffee, even in its Dr. Holland has heard from one or two native country. West Indians, that the aroma of coffee, strongly concentrated and long applied, is capable of producing delirium, or some degree of aberration of mind. This account the Doctor first received from a young man, a native of St. Domingo, who arrived in this country in a state approaching to mania, and died soon afterwards. His illness was attributed by a friend who accompanied him, (and who assured the Doctor that he had known similar cases,) to his having slept during the voyage in a cabin half filled with bags of coffee. Dr. Holland had no means of ascertaining the entire truth of this opinion; which, in fact, was disproved in the case in question, by cerebral disease actually discovered, and presumably of a date anterior to the voyage\*.

#### COFFEE-MAKING IN FRANCE.

The inferiority of Coffee made in England to that made in France, is the invariable observation of every one who has travelled from London to Paris, or even from Dover to Calais. If we examine the French method, this difference will be no longer matter of surprise. The causes of our failure in making good coffee in England are, 1. Overroasting the seeds; and from this Error arise most of the inconveniences which are so often attributed to coffee, but which, in truth, are produced by the imperfect modes of its preparation. The coffee, Turkey or Bourbon, is, in France, roasted only till it is of a cinnamon colour, and closely covered up during the process; and this is done in closed iron cylinders, turned over a fire by a handle, like that of a grindstone. We grind the coffee too fine: it should be but coarsely ground soon after it is roasted, but not until

\* Medical Notes, p. 445, note.

quite cool: some think its aroma is better preserved by beating it in a mortar; but this is tedious. We do not use enough coffee; for the usual proportion in France is one pint of boiling water to two and a half ounces of coffee; though this is expensive. Over-boiling is another Error, as it extracts the bitter principle from the coffee. A common method in France is to put the coffee into the water, cover the coffee-pot up, and leave it for two hours surrounded with hot wood ashes, so as to keep up the temperature without making the liquid boil. Occasionally stir it, and after two hours infusion remove it from the fire, allow it a quarter of an hour to settle, and when perfectly clear decant it. Isinglass, or hartshorn shavings, is sometimes used to clarify coffee; but by this addition you lose a great portion of its delicious aroma.

#### COPPER AFTER WINE.

The system now adopted, in imitation of the French custom, of taking very strong Coffee after Wine, though so very agreeable, is injurious, if the wines taken during the meal have been Port, Sherry, and Madeira; but not so if those of a lighter quality have been drunk. Great excitement attends upon this indulgence, for coffee has a great influence upon the stomach, and likewise upon the brain. Watchfulness of long duration, with a feverish reaction, are its immediate effects; but its distant ones are more upon the extreme capillary vessels of the surface of the body, which it seems to constringe; it affects the skin, to which it gives a peculiar harshness; and it has been said by some of the French writers to give it colour; and the sallowness of the Parisians has been, by more than one medical author, ascribed to their great addiction to coffee\*.

# GROCERS' CUBRANTS

ARE a kind of small clustering grape, extensively cultivated in the Greek islands, where they are often called "corinths," of which name "currants" seems a corruption.

#### BITTER ALMONDS.

THERE was formerly a notion, but it was quite erroneous, that the eating of Bitter Almonds would prevent the intoxicating effects of wine.

\* Dr. Eigmond.

This Error has, however, been exploded since the days of Sir Thomas Browne, who observes: "It hath much deceived the hope of good fellows, what is commonly expected of Bitter Almonds, and though in Plutarch confirmed from the practice of Claudian, his physitian, that antidote against ebriety hath commonly failed. Sarely men much versed in the practice do err in the theory of inebriation; conceiving in that disturbance the brain doth only suffer from exhalations and vapourous ascensions from the stomach, which fat and only substances may suppress. Whereas the prevalent intoxication is from the spirits of drink dispersed into the veins and arteries, from whence by common conveyancers they creep into the brain, insinuate into its ventricles, and beget those vertigoes, accompanying that perversion."

## POISONOUS NOYEAU.

The substance which gives its peculiar flavour to bitter almonds, and to the kernels of peaches, apricots, &c., as also to the leaves of all the species of cherry and peach, is prussic acid, so well known as a powerful medicine and poison. It is this which renders a large draught of Noyeau, or other cordial of a similar kind, so often injurious, or even fatal. The Prussian medical police, therefore, which is remarkably vigilant, is in the habit of examining liqueurs of this sort exposed for sale.

In Curtis's Botanical Magazine, we read: "In the preparation of Noyeau probably several different vegetables are employed, which contain prussic acid. A species of bindweed abounds in prussic acid, and is a frequent ingredient in the preparation of noyeau. But we are naturally led to expect prussic acid in plants of the plum tribe; and Dr. Swartz assures us, that the bark of the prunus (cerasus,) occidentalis of the West Indies, on account of its peculiar taste and smell, is used instead of the amygdalus persica (peach); and of the prunus spherocarpa (noyeau cherry,) he says, that the kernel of its nut resembles in taste that of the bitter almond. M. Guilding observes, that the bark, leaves, and kernel, have the smell and taste of those of the peach, and they are employed by French colonists in the manufacture of Noyeau."

<sup>\*</sup> Vulgar Errors, book il. chap. 6.

#### BLACK AND WHITE PEPPER

Ask both produced from the same shrub; but, although White Pepper is sold at the highest price, it is inferior to Black. It is called Black Pepper while it is in the state of nature, covered by its external coat. White Pepper is merely Black Pepper deprived of this coat; but as the busk contains a powerful principle, it is evident that the White Pepper loses much of its stimulating property, and is inferior to the Black. The only reasonable foundation for the preference of White to Black Pepper, is the fact that the finest papper is the young berries which fall from the trees, and are whitened by exposure to the weather; but such herries are found in small quantities, and are never brought to England.

# " SOV FROM BLACK BESTLES."

Sattens have a notion that Soy is made from extraches; and, however absurd the belief may appear, the reason for it is worthy of investigation. The Chinese at Canton have a large Soy manufactory, and they are particularly solicitous to obtain cockroaches from ships; from which circumstances sailors immediately conclude that it is for the purpose of making Soy from them. But, it is better established that cockroaches are used by the Chinese as bait in fishing. The infusion of cockroaches is also used in medicine; and Mr. Webster, surgeon of H.M.S. Chanticleer, states that common salt and water, saturated with the juices of the cockroach, has all the odour, and some of the flavour and qualities, of Soy; so that the sailors notion, after all, may not be far from the truth.

# TEST OF BRINE.

A common test of the quantity of salt necessary to add to water, in making Brine for pickling meat, is to continue to add salt until an egg will swim in it. This, however, is an imperfect test of the strength of the Brine; since an egg will float in a saturated solution of salt and water, and will also float, if to the same saturated solution a bulk of pure water equal to twice the bulk of the latter he added. According to Oay-Lussae, seven onnees and a half of salt are necessary to saturate an imperial pint of water. This is important, since the efficacy of Brine in preserving meat depends very much upon getting a solution of salt at the exact point of saturation.

# III.-DOMESTIC ARTS AND MANUFACTURES.

## BREWING.

### HOPS AND COALS NUISANCES.

Hops are first mentioned in the statute book in 1552; and it would appear, from an Act passed in 1603, that Hops were at that time extensively cultivated in England. Walter Blythe, in his Improver Improved, published in 1649, has a chapter upon improvements by plantations of Hops, which has the following striking passage: -- He observes, that " Hops were then grown to be a national commodity; but that it was not many years since the famous city of London petitioned the Parliament of England against two nuisances; and these were, Newcastle Coals, in regard to their stench, &c, and Hops, in regard they would spoul the taste of drink, and endanger the people; and, had the Parliament been no wiser than they, we had been in a measure pined, and in a great measure starved; which is just answerable to the principles of those men who ery down all devices, or ingenious discoveries, as projects, and thereby stifle and choak improvements."

The force of prejudice in the price of Farnham Hops, though nothing but a hedge parts them from another parish as well cultivated, is very great. A higher price is always given at Weyhill fair, the great mart for Hops in this part of the kingdom, for those of the growth of the

parish of Farnham, than for any other".

### HIGH-DRIED MALT.

The extensive addiction of the public to beer made from High dried Malt, as porter and stout, is a strange specimen of the caprice and Error of public taste. The nourishment of the grain, barley, depends upon the proportion of saccharine matter which it contains after it is malted. This is done with a heat so conducted that three

<sup>&</sup>quot; Manning and Brny's Surrey, vot. iii. p. 135,

# BLACK AND WHITE PEPPER

Ane both produced from the same shrub; but, although White Pepper is sold at the highest price, it is inferior to Black. It is called Black Pepper while it is in the state of nature, covered by its external coat. White Pepper is merely Black Pepper deprived of this coat; but as the husk contains a powerful principle, it is evident that the White Pepper loses much of its stimulating property, and is inferior to the Black. The only reasonable foundation for the preference of White to Black Pepper, is the fact that the finest pepper is the young berries which fall from the trees, and are whitened by exposure to the weather; but such berries are found in small quantities, and are never brought to England.

# "SOY FROM BLACK BEETLES."

Sallons have a notion that Soy is made from conches; and, however absurd the belief may appear, the reason for it is worthy of investigation. The Chinese at Canton have a large Soy manufactory, and they are particularly solicitous to obtain cockroaches from ships; from which circumstances sailors immediately conclude that it is for the purpose of making Soy from them But, it is better established that cockroaches are used by the Chinese as bait in fishing. The infusion of cockroaches is also used in medicine; and Mr. Webster, surgeon of H.M.S. Chanticleer, states that common salt and water, saturated with the juices of the cockroach, has all the odour, and some of the flavour and qualities, of Soy; so that the sailors' notion, after all, may not be far from the truth.

## TEST OF BRINE.

A common test of the quantity of salt necessary to add to water, in making Brine for pickling meat, is to continue to add salt until an egg will swim in it. This, however, is an imperfect test of the strength of the Brine; since an egg will float in a saturated solution of salt and water, and will also float, if to the same saturated solution a bulk of pure water equal to twice the bulk of the latter be added. According to Gay-Lussac, seven ounces and a half of salt are necessary to saturate an imperial pint of water. This is important, since the efficacy of Brine in preserving meat depends very much upon getting a solution of salt at the exact point of saturation.

# III.—DOMESTIC ARTS AND MANUFACTURES.

## BREWING.

## HOPS AND COALS NUISANCES.

Hops are first mentioned in the statute book in 1552: and it would appear, from an Act passed in 1603, that Hops were at that time extensively cultivated in England. Walter Blythe, in his Improver Improved, published in 1649, has a chapter upon improvements by plantations of Hops, which has the following striking passage: -He observes, that " Hops were then grown to be a national commodity; but that it was not many years since the famous city of London petitioned the Parliament of England against two nuisances; and these were, Newcastle Coals, in regard to their stench, &c., and Hops, in regard they would spoul the taste of drink, and endanger the people; and, had the Parliament been no wiser than they, we had been in a measure pined, and in a great measure starved; which is just answerable to the principies of those men who cry down all devices, or ingenious discoveries, as projects, and thereby stifle and choak improvements."

The force of prejudice in the price of Farnham Hops, though nothing but a hedge parts them from another parish as well cultivated, is very great. A higher price is always given at Weyhill fair, the great mart for liops in this part of the kingdom, for those of the growth of the

parish of Farnham, than for any other\*.

#### HIGH-DRIED MALT.

THE extensive addiction of the public to beer made from High-dried Malt, as porter and stout, is a strange specimen of the caprice and Error of public taste. The nourishment of the grain, barley, depends upon the proportion of saccharine matter which it contains after it is malted. This is done with a heat so conducted that three

<sup>\*</sup> Manning and Bray's Surrey, vol. iii. p. 135.

distinct shades of colour shall be produced, pale, amber, and brown. In the pale malt, the saccharine principle exists in perfection, and it affords the strongest and best beer. In the amber-coloured, it is scorched, and therefore rendered less sweet, on account of the partial decomposition. In the brown, (or high-dried,) the scorching has proceeded so far that scarcely any trace of sugar can be discovered. If it be very brown, the taste is even bitter and disagreeable. Hence, we perceive, that these varieties consist merely in the greater or less degree of charring which the sugar is made to undergo; and that the result is, the greater or less destruction of the value of the malt,

## THE ABT OF BREWING.

THE difficulty of Brewing is not of such magnitude as the brewer supposes, or would lead the world to suppose. He often deceives himself into the belief that he possesses important secrets: he knows that by their application he can brew good drink; but he is not aware that, by any other method, he might produce as good, or hetter. There are, however, few arts in which experience affords so little real knowledge, or in which mistaken principles are more likely to be adopted; and for a very obvious reason. make experiments in Brewing on a large scale is a dangerous occupation of capital. No brewer ever thinks of making such an experiment. If he apprehends a failure, when untoward circumstances occur in a brewing, his object is rather to correct and modify them, than to ascertain what would be their results if allowed to proceed as they threatened. On the small scale, nothing can be learned, as the results are so very different. Throughout the process, the brewer is cautious, and never willingly varies from that role which he has found successful; hence, the results of other modes of operating are known chiefly by conjecture; disputed points remain for ever matters of opinion; and, in fine, the art remains pretty much what it was a century since".

One of the secrets of Brewing appears to have been lost long since; for, in a diary of the year 1650, we find: "We have utterly lost what was the thing which preserved beer so long before Hops were found out in England."

<sup>\*</sup> Abridged from Donovan's Domestic Economy.

### WATER FOR BREWING.

Most of the authors of treatises on Brewing recommend the use of soft water in preference to hard. The latter they affirm to be totally incapable of taking a complete extract from malt and hops, as it is well known to be, they say, from tea or from meat. Others affirm that hard water worts do not ferment well, and that they afford a weak and vapid beer. It is, however, difficult to conceive how the existence of two or three grains of saline and earthy matter in a pint of water could, even in the most trifling degree, influence its solvent power on the materials used in Brewing. The matter of malt, which partakes so much of the nature of sugar, cannot be conceived to dissolve less readily in such water than in the softest. bitter principle of the hop resembles other bitters, as wormwood, gentian, quassia, and colomba; all which give out their bitterness freely to water containing salt. And, what in itself is ample demonstration on the subject is, that the grains and hops left after they have been duly infused in hard hot water, repeatedly applied, are found to be perfectly exhausted of their qualities. boiling hard water, it is brought nearly to the state of soft water, when its peculiar taste, if retained, is so feeble as to be covered by the bitter of the hop.

"On the whole," says Mr. Donovan, "it appears that the objections to hard water originated in the distrust natural to mankind in matters which they do not understand. The nature of hard water was not known to brewers of former times: the cause of the hardness being not palpable to the senses, it became a fair subject of con-

jecture, and prejudice became hereditary."

### THAMES WATER FOR BREWING.

The soft Water of the Thames was once supposed to be superior to all other for Brewing malt liquors. This superiority is no longer acknowledged, as Thames Water is now almost entirely superseded either by hard water, or by the New River water, in the great London breweries. It is known that, between a stratum of clay and a stratum of chalk, about 200 feet below the foundation of London, there is a never-failing supply of excellent hard water, which, for each Brewery, is obtained from pumps supk

in wells to the necessary depth. Thus, Mesars. Barclay have sunk a deep well on their brewery premises, although they are but a few poles from the Thames itself. In short, the excellence of London porter affords a sufficient proof of the adequacy of hard water to answer all the purposes of Brewing.

### SALT IN BEER.

In Scotland, it was formerly customary to throw a little dry malt, and a handful of Salt, on the top of the mash, "to keep the witches from it;" and, in private breweries, to prevent the interference of fairies, a live coal was thrown into the vat.

Subsequently, Salt has been added to the water used in extracting the sweet matter of malt, with a view, as has been supposed, of exciting thirst; but it produces other effects: in particular, it moderates the fermentation, makes the liquor fine, and is otherwise beneficial.

## BEER TURNING SOUR.

"The thunder has soured the beer," is a common expression often founded on Error. Although Chaptal ascribes to agitation the operation of thunder; it is well known that when the atmosphere is highly electrified, beer is apt to become suddenly sour without the concussion of a thunderstorm. The beer may, therefore, have become sour by other means. The suddenness with which this change is effected during a thunderstorm, even in corked bottles, has not been accounted for.

Sir Thomas Browne remarks: "Now that beer, wine, and other liquors, are spoiled with lightning and thunder, we conceive it proceeds not only from noise and concussion of the air, but also noxious spirits which mingle therewith and draw them to corruption; whereby they become not only dead themselves but sometimes deadly unto others, as that which Seneca mentioneth; whereof whosoever drank either lost his life or else his wits upon it\*."

It was formerly believed that putting a cold iron bar upon the barrels would preserve beer from being sourcd by thunder. This custom has lately been common in Kent and Herefordshire.

<sup>\*</sup> Vulgar Errors, book il. chap. 6.

### BITTERS IN PORTER.

Before wereprehend the London brewers for their adulteration of Porter with Bitters, we should recollect that the bitter contained in porter, if wholly taken from hops, would require an average quantity of ten or twelve pounds to the quarter of malt, or about three pounds per barrel; so that if we consider the fluctuation in the price of hops, we shall not be surprised at the numerous substitutes by which means the brewer can procure as much bitter for sixpence as would otherwise cost him a pound. Quassia is, probably, the most harmless of all the illegal hitters. Physicians prescribe the decoction to their patients to the extent of a quarter of an ounce of the bark a day; as much as the brewer is accustomed to put into nine gallons of his porter.

## HEADING OF PORTER.

BEFORE the artificial Heading of Porter is condemned, it should be recollected that the low price unfortunately prevents the brewer from giving to his drink such a body as would spontaneously carry a close head. To conceal this poverty, the publican lays on the porter a headingstuff of a solution of isinglass in sour porter. This heading can, however, be diluted by blowing on it and separating it on the surface; if it do not close in immediately again, the artifice may be suspected. To defeat this mode of detection, two tea-spoonfuls of powdered and dried green copperas are dissolved in each hogshead of porter. This addition causes a close head on the drink; the copperas is decomposed, as soon as dissolved, and, even were it not decomposed, the quantity of a grain and a half to each gallon could not have any injurious quality. It may, however, be observed, that when porter is well brewed from good malt, and hops used in due quantity, there is no occasion for heading or fining, or any modifying process\*.

#### LONDON PORTER.

It seems to be pretty generally admitted, that no brewery, either in England or elsewhere, has been able to make Porter equal to the large Porter breweries of London.

<sup>\*</sup> Abridged from Donovan's Domestic Economy.

This superiority has been attributed to the use of the Thames water; but, in the first place, the small London breweries, which do not make good porter, have this advantage in common with the large ones; and, secondly, these last have long since ceased to use the water of the river, as experience has proved it liable to cause acidity in the liquor. The superiority, as far as it exists, is, doubtless, owing to command of capital and consequent power of choice in the malt market, aided by system in conducting the business. No very good porter is made in the United States of America; three mash tuns being necessary to make it perfect, and only one being commonly used in that country\*.

## CIDER AND PERRY.

From a paper in the *Philosophical Transactions*, anno 1745, it appears that persons are much in Error who are particularly solicitous about the nature or quality of the apple or pear which is to be made use of for the manufacture of Cider or Perry. It is not pretended that mere crabs will produce liquor palatable to all persons; but that mere crab cider will please many; that by peculiar management it can be fermented into a strong spirituous liquor; and that a large intermixture of crabs with apples of any other quality, or pears, will afford excellent and well-flavoured liquor.

# WINE-MAKING.

## THE VINEYARD.

A VINEYARD is by no means so pleasing an object as our ideas of beauty and plenty would lead us to imagine. The hop plantations of our own country are, indeed, far more picturesque. In France, the vines are trained upon poles seldom more than three or four feet high, and are little more pleasing in appearance than raspberry stocks in England. In Switzerland and the German provinces, the vineyards are as formal as those of France. In Spain, vines are grown without poles. In Greece and Italy, their luxuriance is seen to better advantage, but it falls very short of the vineyard of poetry and romance.

<sup>\*</sup> Encyclopædia Americana.

## THE VINE NOURISHED BY BLOOD.

Nor many years since, there was an ill-founded notion that Blood poured upon the roots of the Vine during spring would tend to increase its fruitfulness. May not this notion have originated from a passage of Plutarch, wherein he states that the Egyptians believed the vine to grow from the ground impregnated with the blood of giants that had been killed in the wars with their gods?

# WHAT IS WINE ?

Vinous liquors resembling Wine may be made from every fruit, as well as from every vegetable, which contains acid united to its extractive matter. The term wine is thus applied to the produce of currants, gooseberries, and other fruits; while that of cider is especially reserved for the liquor to be obtained from apples. The latter term would, however, be a fitter one for many of the vinous liquors in question, the term wine being restricted to the produce of the vine. Tartarous acid, or its combination, is especially indispensable for making wine, and hence it is that the grape which contains this acid in large quantity produces wine; whilst the apple and other fruits which contain the malic acid produce cider.

#### PRINCIPLES OF WINE.

The erroneous notions respecting Wine will no longer excite surprise when it is known that chemists are, as yet, but imperfectly acquainted with its principles. The agreeable tartness of the juice of the grape consists of tartaric, citric, and malic acids, and an acid called vinic, which resembles tartaric acid in many respects, but concerning the nature of which scarcely anything is known.

The bouquet and aroma of wines are often confounded, whereas they are very different. The bouquet is produced by a peculiar substance resembling an essential oil; it exists but in very few wines, and is not volatile.

# BENEFITS OF WINES AND SPIRITS.

NOTWITHSTANDING all that the advocates of temperance have said in depreciation of Wines and Spirits, they are, doubtless, beneficial when moderately employed. Dr. Sigmond well observes: "Good wine is a cordial, a good cordial, a fine stomachic, and, taken at its proper season,

invigorates the mind and body, and gives life an additional charm. There can be found no substitutes for the fermented liquors that can enable man to sustain the mental and bodily labour which the artificial habits of society so constantly demand. Temperance and moderation are virtues essential to our happiness, but a total abstinence from the enjoyments which the bounteous hand of Nature has provided, is as unwise as it is ungrateful. If, on the one hand, disease and sorrow attend the abuse of alcoholic liquors, innocent gaiety, additional strength and power of mind, and an increased capability of encountering the ever-varying agitation of life, are amongst the many good results which spring from a well-regulated diet in which the alcoholic preparations bear their just proportion and adaptation."

### WINE AS A LUXURY.

Ir is a great mistake in public hygiène to consider Wine as a Luxury for a few only, and to drive the middle classes to spirits by prohibitory duties. The late Mr. Jefferson, President of the United States, in his Memoirs, expresses his gratification at the introduction of a very cheap wine, (St. George,) into his neighbourhood, which had already quadrupled the number of those who kept wine. In the same work he says: "I rejoice, as a moralist, at the prospect of a reduction of the duties on wine by our national legislature. It is an Error to view a tax on that liquor as merely a tax on the rich. It is a prohibition of its use to the middling classes of our citizens, and a condemnation of them to the poison of whisky, which is desolating their homes. No nation is drunken where wine is cheap; and none sober where the dearness of wine substitutes ardent spirits as the common beverage."

## TABLE IN WINES.

The art of choosing Wine is so beset with fallacies, as to account for the difficulty of describing what really constitutes good or bad wine. Dr. Henderson, in his ingenious History of Wines, throws some light upon this portion of his subject in the following observations: "As tastes and smells reside not in the objects themselves, but in the senses by which they are perceived, so they are liable to be modified by the habits and conditions of these organs. The difference of tastes, in this view of the subject, is

proverbial; and much of the diversity undoubtedly proceeds from the way in which the palate has been exercised. Thus, strong liquors blunt its sensibility, and disqualify it for the perception of the more delicate flavours of the lighter wines". A person accustomed only to bad wines will form but a very erroneous estimate of the better growths, and sometimes, even, give the preference to the former. Whole nations may be occasionally misled by this prejudice. traveller, who arrives at the end of his journey exhausted by fatigue and thirst, will be apt to ascribe the most delicious qualities to the first ordinary wine presented to him, which, under other circumstances, he perhaps could hardly have endured: and a continued use of the inferior liquors of one country may lead him to overrate the vinous produce of another. In returning from Italy, the common growths of the Rhine appeared to me of excellent flavour, and their acidity scarcely perceptible; but, had I come from Burgundy or Dauphiny, I have no doubt that they would have tasted disagreeably sour. Therefore, if it were possible for an individual to traverse all the wine-countries of the globe, and taste all the different vintages, still his observations and judgment would be liable to much fallacy, and could be reckoned decisive only when confirmed by general report."

# FIRST-CLASS WINES.

As the first-rate growths of Wines are confined to a small number of vineyards, and these often of very limited extent, the supply of such wines can never equal the demand. Every one who can afford the luxury, is naturally desirous to stock his cellar with those of the choicest quality; he orders no others; and the manufacturer and wine-dealer are thus induced to send into the market a quantity of second-rate and ordinary kinds, under the names of the fine wines, which they are unable to furnish. In this way, great confusion and misunderstanding have arisen in those countries where there is but little known with respect to the true characters of many wines of the greatest name<sup>+</sup>.

<sup>\*</sup> May not this account for the comparatively small consumption of French Wines in England, and the prodilection of the English for the stronger wines of Spain and Portugal, which "have disqualified their perception of the delicate flavours" of those of France?

<sup>†</sup> Dr. Henderson's History of Wines.

## COLOUR OF WINE.

It is an erroneous idea to suppose that white wine is exclusively the produce of white grapes. Fermentation alone determines the Colour. The juice contained in both the red and white grape is nearly as colourless as water ; except in one peculiar species, which is called the dyer. " raisin teinturier," the liquor of which is of a purple hue. If the joice of the grapes which have been gently pressed by the feet of men in the tub at the vineyard, is drawn off, and allowed to ferment without the skin, the seeds, and the stalks, which contain the colouring elements, the wine will certainly be white. On the contrary, if the liquor is left to ferment with them, the wine must be red.

White champagne is made, for instance, from a grape so deep in colour, as to appear actually black; and sherry is indiscriminately made from coloured and colourless grapes, although a white wine. Red and white port are produced from the same grape, the former with, and the latter without, the husk being allowed to remain in the must during its fermentation. The red colouring matter in the busk is of an astringent nature; and it communicates the same quality to the wine, as well as a slight roughness. The husk is, however, capable of communicating but a light red colour; when the red is deep, it is the effect of artificial colour imparted; and a deep red colour is never a desirable quality.

# MATURINO WINES.

It is a mistake to imagine that Madeira is the only wine to be benefited by a warm cellar, and the agitation of a seavoyage. The effect of heat is, indeed, such in this case as is suspected by few. In America, it is a well known practice to boil Madeira, or to heat it to the boiling temperature, and the effect is that of rendering it good and old-flavoured wine, when previously harsh and new : the same practice is applicable to port. If newly-bottled wine be exposed to the sun, it begins shortly to deposit, and improve in flavour; and even the rawest wine of this kind, by heating it in hot water, may be caused, in the course of a day, to assume the quality which it would have after many years' keeping. It is so far from being injurious, as might be imagined, that it is a valuable secret;

and it is believed to be but little known to those whose interest it is to give the complexion of old wine to new, and who generally effect this purpose in a fraudulent manner, by putting it into foul and crusted bottles.

# CRUSTED WINES .- OLD WINES.

A THICK Crust does not always show that the wine is

good, but often that it has been bottled too soon.

The Error of preferring wines of great age has, at length, been discovered, and the excellence of the vintage has proved to be of more consequence than the number of years. Port wine, when tawny loses its astringency, and has an increased tendency to produce gout.

## WINES AND SPIRITS.

Some wine-drinkers may be heard to boast that they never touch spirits, unconscious, perhaps, that in every touche of their favourite liquor they swallow a fourth part of alcoholic spirit, in addition to the genuine strength of wine.

It has been proved, by analysis, that some port wine contains about one half its bulk of pure brandy, and that every time a man drinks two bottles of strong-bodied port he drinks one of brandy: yet how many are there not content with this quantity. Sir John Sinclair gives as an instance of a Mr. Vanhorn, who daily, for twenty-three years, drank his four bottles; altogether thirty-five thousand six hundred and eighty-eight bottles; and, as our guide to longevity, Sir John, quaintly observes: "in the course of his potation, he resembled a cellar more than a man, for there are many cellars that never contained what this man must have done, namely, fifty-nine pipes of port\*."

## SPIRIT IN VARIOUS WINES.

Dr. Christison, in some experiments recently made on the proportion of alcohol in various Wines, has arrived at some results which are at variance with previously received conclusions. Dr. C. infers that the alcoholic strength of various samples of the same kind of wine bears no relation whatever to their commercial value, and is often very different from that which would be indicated by even an experienced wine taster. For a moderate term of years, the proportion of alcohol increases in wine kept in the cask, but afterwards, on the contrary, diminishes; and the period when the wine begins to lose its alcoholic strength is, probably, that at which it ceases to improve in flavour. Dr. Christison introduces a table of wines as the result of his investigations, and has been led to the general conclusion, that the alcoholic strength of many wines has been overrated by some experimentalists.

## BHANDVING WINDS.

It has been disputed whether Brandy was first introduced into Oporto Wines, to enable them to bear sea-carriage, or to please the English palate. In this country, however, it is believed, not only that the quality of these Wines is much improved by the admixture but that they will not even keep any length of time without a certain portion of Brandy. Dr. Henderson shows that such addition does not ultimately improve Wine as, he thinks, must be evident to every one who has observed the progress of the decomposition incident to the infector Port Wines; these can never be said to be in condition, but after a certain period they lose what little flavour they possessed and become more or less tawny; white lighter wines, that contain no adventitious spirits, remain quite unchanged,

## MEDICINAL QUALITIES OF POUT WINE,

The general opinion which prevails of the uniformly strengthering properties of Port Wines is ill founded. Astringent and potent from brandy they undoubtedly are, and may be serviceable as gentle tontes. But the gallie seid renders them unfit for neak stomarks. The excitement they induce is of a more sluggish nature than that attending the use of the purer Preuch Wines, and does not enliven the fancy in the same degree. As a frequent beverage they are unquestionably more permicioust.

<sup>\*</sup> The accuracy of Prof. Brande's well known Table of the Strength of Wines, printed in his Manual of Chemistry and in the Philosophical Transactions has often been imposed; and especially by an apparently well informed Correspondent of the Mechanic's Magastre, 1861.

1 Dr. Henderson,

#### PALE AND DARK SHERRIES.

Ir has often been said that Sherry is a compound Wine. but this is a mistake The best pale and light golden Sherries are made from the pure Xeres grape, with only the addition of two bottles of brandy to a butt, which is no more than one two hundred and fiftieth part. Neither are the deep golden and brown Sherries of the best quality compound wines, though they may be called mixed wines; for they are coloured by boiling the wine of Xeres. Pale Sherries are, however, the purest; though all the gradations of colour, upon which so much stress is laid, have nothing to do with the quality of the wine, but depend materially upon the greater or smaller quantity of boiled wine used for colouring it\*.

In short, it is entirely by the aroma, and by the taste, not at all by the colour, that Sherries are to be judged. The wide differences in colour depend entirely upon the proportion of boiled wine; while those lighter shades, perceptible among the pale and light golden wines, are owing to some small difference in the ripeness of the

fruit.

## ADULTERATION OF SHERRIES.

WE are too apt to visit the sins of adulteration upon the London wine-merchant, forgetting, or not knowing, that Sherries are not usually adulterated by our wine merchants, with the exception of those extremely inferior wines, which, from their excessively low price, no one can expect to be genuine wines, and which are probably mixed with Cape; but the class of wines which pass under the denomination of " low-priced Sherries," are not adulterated in London, but at Xeres b the grower, not by the exporter.

It may be laid down as a fact that gennine Sherry, one year old, cannot be imported under thirty shillings per dozen; and, if to this be added the profit of the merchant, and the accumulation of interest upon capital on old wine, it is obvious that genuine Sherry, four years old, cannot be purchased in England under forty-five shillings t.

# MANUFACTURE OF SHERRIES.

AT Xeres, the old wines are kept in huge casks, not much inferior in size to the great tun of Heidelberg, called

> \* Inglis's Spain. † Inglis. H 2

Muche butts; and some of these "old ladies" contain wine that is one hundred and twenty years of age. It must, however, be confessed, that the plan adopted in keeping them up partakes somewhat of the nature of "une imposture délicute," since, whenever a gallon of wine is taken from the one hundred and twenty year-old butt, it is replaced by a like quantity from the next in seniority, and so on with the rest; so that even the very oldest wines in the store are daily undergoing a mixing process.

# ENGLISH CONSUMPTION OF FRENCH WINES.

THE Consumption of French Wines in England is very This is attributable to the high duties imposed on them, and to an erroneous notion of their being too cold for English stomachs. By a comparison of the number of gallons of wine exported from France to different countries in 1832, it appears that in Holland the consumption of French Wines is four times, and in Russia. twice, that in England. It is also worthy of remark, that, long after the Methuen treaty, Scotland and Ireland, under the genial influence of low duties, were still famous for claret; so erroneous is the vulgar opinion, that it is a Wine only suited for hot weather! Home, the author of Douglas, in the following epigram, attributes the fiscal regulations, which introduced the heavier wine of Portugal into Scotland, to a settled design to break down the spirit of the people:

> "Firm and erect the Caledonian stood, Old was his mutton, and his claret good; 'Let him drink port,' an English statesman cried; He drank the poison, and his spirit died!"

# FINE CLARET.

A GREAT proportion of the wine which is drunk under this denomination is nothing but the vin ordinaire, or, at best, the secondary growths of Gascony and Guienne; for the prime growths fall far short of the demand which prevails for these wines, not only in this country, but in Flanders, Holland, the north of Europe, and the East and West Indies. In favourable years, the produce of Lafitte, Latour, and Château Margaux, sells at from 3000 to 3200 francs the tun, which contains 242 gallons; and when they have been kept in the vaults for six years, the price is doubled; so that even in Bordeaux a bottle of the best

wine cannot be purchased for less than six francs. There is, however, a particular manufacture, called travail à l'Anglaise, which consists in adding to each hogshead of Bordeaux wine three or four gallons of Alicant of Benicarlo, half a gallon of stum wine, and sometimes a small quantity of Hermitage. This mixture undergoes a slight degree of fermentation; and, when the whole is sufficiently fretted in, it is exported under the name of Claret\*.

## CLARET AND THE GOUT.

CLARET has been accused of producing the Gout; but without reason. Persons who drench themselves with Madeira, Port, &c., and finish with a debauch of Claret, may, indeed, be visited in that way; because a transition from the strong brandied wines to the lighter, is always followed by a derangement of the digestive organs.

## FROTHING CHAMPAGNE.

The manufacturers of Champagne, to preserve its sweetness, and promote effervescence, commonly add to each bottle a portion of syrup, composed of sugar-candy and cream of tartar; the highly frothing kinds receiving the largest quantity. Therefore, contrary to the prevailing opinion, when "the wine sparkleth in the glass, and moveth itself aright," it is most to be avoided, unless the attributes of age should countervail all its noxious properties.

The prevalent notion that a glass of Champagne cannot be too quickly swallowed, is erroneous; and it is no bad test of the quality of Champagne, to have it exposed, for some hours, in a wine glass, when, if originally of the highest order, it will be found to have lost its carbonic acid, but entirely to retain its body and flavour, which had before been concealed by its effervescence. Champagne should, therefore, not be drunk till this active effervescence is over, by those who would relish the above characteristic quality.

Still Champagne is often mistaken by its qualities: it is a strong heating wine, though commonly thought to be

weak and cooling.

The idea that Champagne is apt to occasion Gout seems to be contradicted by the infrequency of that disorder in the province where it is made.

<sup>\*</sup> Dr. Henderson. † Dr. Henderson. † Prof. Brande.

# BHENISH WINES.

A sorros prevails that the wines of the Rhine are naturally acid, and the inferior kinds, no doubt, are so; but this is not the constant character of the Ehine wines, which, in good years, have not any perceptible acidity to the taste, at least not more than is common to them with the growth of warmer regions. But their chief distinction is their extreme durability, in which they are not surpassed by any other species of wine\*.

# IMBIENSE WINE CARRS.

Most persons have heard of the Heidelberg tun, and other immense casks in which wines have been kept for centuries, and have considered these vessels as hage vulgar wonders. But such a mode of preserving certain vintages is not so absurd as has been imagined; for the stronger wines are, undoubtedly, improved by it to a greater degree than they could have been by an opposite system of management. It is, however, necessary to keep the vessel always full, and neglect of this precaution has led to the spoiling of the wine.

The Heidelberg tun appears to have been a vain boast; for, many years since, there were at Beaufoy's Vinegar Works, at Lambeth, a vessel full of sweet wine, containing 59,109 gallons; and another full of vinegar, containing 56 709 gallons; the lesser of which exceeded the famous

Heidelberg tun by 40 barrels.

# " IMPERIAL TORAY

Has been strangely overrated, according to Dr. Townson, who allows it to be a fine wine, but by no means adequate to its price; "there are few of my countrymen, except on account of its scarceness, who would not prefer to it good Caret or Burgundy, which do not cost one fourth the price†. This nectar of German wine-bibbers is not the produce of Tokay itself, but of its environs; it sells in Vienna at 12% per dozen; and some has been sold at 3% per bottle!

\* Dr. Henderson.

I It is a well known fact, that there is more Tokay sold on the Continent and in England, in one year, than the limited space where it is grown, on the mountains of Hungary, would produce in twenty years.

## QUALITIES OF MADEIRA.

THOSE persons who have formed their opinion of Madeira wine from the cargoes which have of late years been imported into this country, may suppose the wine to have been highly overrated by drinters in the last century. "The truth is," observes Dr Henderson, "Madeira, like all other wine countries, furnishes along with a few superior growths a great many of indifferent quality. on the south side of the island, two thirds of the wines are of secondary order; and, on the north side, the greater part of the produce is of a very inferior description. former times, England received only a small quantity of Madeira wine, and that of first-rate quality; but, during the last twenty years, the increasing demand for this wine, co-operating with the impediments which the late war had opposed to our trade with Spain and Portugal, has led to the importation of a large quantity of the common sorts; and these being sold far above their value have necessarily brought the whole into disrepute, at least among those who are not aware of the distinctions abovementioned."

#### MADEIRA ON THE VOYAGE.

THE unwary are led to believe that East India Madeira is the best, which is decidedly wrong. The West India The West India Madeira is the wine par excellence. planters are the very best judges in the world of Madeira wine, and purchase none but the best; and whether consigned to them or sent on speculation to the several islands, the very first quality only is shipped. The distance is nothing, a three weeks' run; and if wine of an indifferent kind were submitted for sale, it would be returned on the merchant's hand. Not so with the commodity sent to the East India market under the attractive cognomen of "London Particular;" it is a thin acid potation, a secondgrowth wine in fact, and as unlike the rich, fruity, nutty beverage of occidental celebrity, as a horse chestnut is to a chestnut horse\*.

## EAST AND WEST INDIA MADEIRA.

It has been humorously observed that a contented citizen, in the innocence of his heart, imagines that a pipe of Madeira stowed away in the hold of the Neptune, or Polly

\* New Monthly Magazine.

of London, and which has been to Ingy and back, must be superior; forgetting that if the wine itself be not originally good, all the voyages from the days of Lord Anson to the present time will never impart richness and flavour to any juice of the grape of a poor and thin body: a genial climate and perpetual motion may accelerate the progress to maturity, but fifty tropical sons and as many trips round the cape will never make fine Madeira. You might as well attempt to convert table-beer into brown stout. With the exception of private stocks in the cellars of the East Indian connoisseur, there is no Madeira equal to that to be met with in every island in the West Indies; and to have it in perfection, it should be drunk upon the spot\*.

# DECANTING MADEIRA AND CLARET.

A FREQUENT Error is that of decanting Madeira wine and leaving the stopper out; it is a barbarous system and cannot be sufficiently reprobated. The fine nutty flavour so much prized by the gastronomic planters, the indescribable aroma, the nosegay in short, is destroyed by this senseless process; your pseudo judge says it renders the wine soft and silky, for which read flat and vapid. Above all, never put your Madeira into a decanter—it is little short of sacrilege. Keep it in the black bottle and never take the cork out but to replenish your glass.

The Fror just pointed out as regards Madeira applies also to Claret; for some unthinking persons will pour it into glass jugs, if not decanters. By this means, the delicate and fragrant bouquet is destroyed. Never be guilty of such injustice to this truly delicious wine; there is never any crust or deposit in good Claret, and you may safely pass the bottle, but with this special observance,

never leave it uncorkedt.

## MADEIRA AND THE GOUT.

Some persons have thought Madeira beneficial in cases of atonic gout, probably without much cause; for whenever a disposition to inflammatory disorders exists, the utility of any sort of fermented liquors is very doubtfult.

\* New Monthly Magazine. † 1bid. ‡ Dr. Henderson's History of Wines.

# FAILURE OF CAPE WINES.

Since the Cape of Good Hope became a British colony. vines have increased there tenfold, and the chief article of commerce has been wine. But, unfortunately, more attention is paid to quantity than to quality, and the manufacture is carelessly conducted. But this is not the chief cause of failure, as is generally supposed, such being in the clay subsoil of the chief vineyards, whence the produce receives an unpleasant flavour, the idea of which is inseparably associated with Cape wine. It has been well observed: "it is unnecessary to enter into the subject of the manufacture of the wine. If the subsoil be bad, so will the It would be advantageous were premiums offered for wine that had not been produced from a subsoil of clay, but had been reared in trellis, as requiring less labour than the standard, and being made on a pure and good system, instead of being mixed with Cape brandy, sulphuric acid, &c. Notwithstanding all these disadvantages, Cape wine is generally sold in England under the names, and at the prices of, Madeira, Sherry, Teneriffe, Stein, Pontac, and, above all, Hock\*!"

It should, however, be mentioned, that Madeira is drunk by the higher classes at Cape Town, and is very

superior to the Cape Madeira drunk in England.

# CULTURE OF THE VINE IN BRITAIN.

Such writers as have taken up the manufacture of wine in Britain, have considered it to have been, in past ages, a wine-growing country; and, reasoning upon this statement, they proceed to describe the little attention now paid to British wines as a neglect of our national resources. There is, however, on the one hand, no sufficient testimony in favour of the growth of wine on a large scale in ancient times. but, on the other hand, some direct testimony against it.

The first positive authority for the cultivation of the vine in Britain is Bede, who says: "Vineas etiam quibusdam in locis germinans†." It is important here to observe

<sup>\*</sup> Sir John Sinclair.

† Hist. Ecclesiast., i. 1. The supposition of Daines Barrington, that in this and other passages "Vince" refers to orchards of apple-trees and current-gardens, is too improbable and unsupported to deserve serious refutation.

the "milmadam in loris." Betting saids vague traditions. the next authentic testimony is that of Domesday Book, which inputious vinevarile in several places. At Rayleigh, in Kases, we are tald; "there is one park, and six arpennis of vineyard, which, if it takes well, yields 20 modil of wine," (Canaden, Beerge,) But the very indication of a few vinevarils here and there excludes the bles of any extensive cultivation, such as takes place in really winegrowing countries. At a subsequent period, many author rities, (for which see the Archenhagin, vol. ii. ch. 9, and Miller's Constener's Dictionary, art. Pilis, prove the exists ence of vineyards in particular spots, and generally in connexion with cathedrals or religious houses. What was the success of these attempts of the monks to make wine, "In commodum et magnum honorem," as an old writer says, of their respective houses, may partly be conjectured from the accounts of a vineyard at Isly, given by Miller, where the sale of verious forms a considerable portion of the profits of the vineyard". Unly one passage has been qualed that would at all seem to inuly an extensive cultiz vation of the vine in Britain in ancient times; and even in that, from William of Malmesbury, boasting of the superiority of the vineyards of Chancestershire.) the terms are too vague to allow of any positive conclusion.

The belief in the extensive growth of the grape for the purpose of making wine has, therefore, no other authority than the existence of vinevarils in a few localities. tells us, that in the year 1983 Dr. Hathurst, President of Trinity College, made us good Claret at Oxford, " in a very mean year for that purpose," as any one could wish to drink ; and Pepps save, that in the reign of Charles II. very good wine was made at Walthamstow. Miller gives a list of places at which wine was made in the course of the last century; among which are Notherhithe, Brompton. Kensington, Hammersmith, Walliam Green, (wine was made at this place for thirty years, ) Arumlel, and Pain's Hill, near Cobham The wines of many of these places are described as being equal, or superior, to the French wines of the second class. That made by Mr. Hamilton at l'ain's Hill, is said to have been fully equal to the best Champagne, and to have sold for fifty guineas a hogshead.

<sup>\*</sup> In the 13th Bilward II., the wine from the vinepartical Big orbit for 11. 13s.: the verjuice for 11. 7s: in 9th Bilward IV., on wine, only verjuice, was made.

I Canaden, Staffordshire.

The testimony against the growth of wine on a large scale in ancient times, rests on Perrarch, who, according to Miller, speaks of the people in England as not drinking wine; and Daines Barrington has quoted Lord Bacon. who says that grapes require a south wall to ripen.

All the testimony adduced merely indicates a very local and partial cultivation of the plant; such, in fact, as numerous experiments have shown to be practicable in recent times. These valuable facts have been condensed from a paper contributed to the Philosophical Magazine, Third Series, No. 108 .- August, 1840.

# BRITISH WINE-MAKING.

THE popular processes for making Wine in this country usually fail, from the very erroneous notions entertained of the principles of the manufacture. The natural ill qualities of our fruits must be corrected by art; and to do this with effect, and to imitate the qualities of the more perfect fruits of warm climates, constitutes the whole secret. Every receipt-book is full of processes for making a multiplicity of domestic wines. These never take into account that an unvarying process cannot be adopted to the everchanging nature of our fruits, the qualities of which are different, according as the season has been wet or dry, cold or warm; according as the soil was exhausted or well manured; the vines skilfully or ignorantly pruned.

Sugar is then employed to supply the natural deficiency in the fruit; and the great Error lies in using too small a portion of fruit compared with the sugar. Hence, our home wines have a sweet and mawkish taste; and. "that which we call currant wine, is neither more nor less than red-looking, weak rum, the streng h coming from the sugar. People deceive themselves. The thing is called wine, but it is rum; that is to say, an extract of sugar\*."

Another Error is the addition of spirits to domestic wines: they will not check fermentation, nor prevent wine turning sour; but they will spoil the flavour of the

best wine, unless added in a very small quantity.

Wine-making, is, in fact, a chemical process, instead of an every day art of housew fery. An attention to the scientific principles of wine making would, doubtless, render these domestic receipts more complete than they now are;

<sup>#</sup> Cent. v. Exp. 430, 432. † Cobbett's Cottage Economy.

but, much as ingenuity may be exercised by experiment, we are not among those who think that the disadvantages of climate and growth are to be entirely outmastered by art.

## HOME-MADE WINES UNWHOLESOME.

Few persons are disposed to reject home-made Wines from their unwholesomeness; especially as their manufacture at home ensures a knowledge of their component parts, which, though wholesome per se, may have contrary properties in combination. These wines are, in general, but imperfectly fermented, and contain a large portion of malic acid and free saccharine matter, and to many of them brandy is added to increase their strength. These acids are highly prejudicial, especially to infirm stomachs; and when the wines containing them are placed within the temperature of the human body, a renewal of the suppressed fermentation will take place; and what little alcohol they have will rather assist than counteract the acidifying "Perhaps too," observes Dr. Henderson, "the predominant acids may undergo some transmutation in the stomach, which renders their presence still more detri-The carbonic acid gas, however, which some of these wines give out in large quantity, cannot be regarded as unwholesome, unless from the distension or commotion which it produces; and it may partly counteract the deleterious qualities of the half-formed wines with which it is united.

# STRENGTH OF BRITISH WINES.

British Wines are commonly thought to be weaker than foreign wines. But raisin and other wines made in this country, are often much stronger than the highest average of port, in consequence of the saccharine matter, or of added sugar which is suffered to ferment into alcohol.

## ICEING WINES.

In cooling wine it is a common mistake to apply ice to the bottom of the bottle only, for only the wine nearest the bottom will then be cooled. Again, if ice be applied, also, to the top of the bottle, there will be two currents upwards and downwards, and the wine will be as if shaken. The choicest wines are ordinarily iced; whereas, (with the exception of Champagne, which gains strength by cold.) common wines only should be iced; and even they would be better if merely cooled with water, which always gives sufficient coolness to wine, even at the hottest temperature of the dog-days.

## SPIRITS.

# CONSUMPTION OF SPIRITS.

Dr. Bowring is of opinion that the increased Consumption of Spirits is rather apparent than real. There is less smuggling now than formerly, and, consequently, there is a corresponding increased entry of spirits in the official tables. Besides, an increased consumption of spirits is quite compatible with less frequent intoxication in the people. The consumption of animal food in England has greatly increased, but this is no proof of an increase of gluttony; it is the result of that reasonable and moderate enjoyment of flesh-meat, in which the people of this country now indulge more than at former periods. So with ardent spirits. In France, the inhabitants consume much more intoxicating liquor than Englishmen, yet drunkenness is much less common in that country.

## AQUA VITÆ.

It is pretty certain that spirit of wine was discovered by the alchemists about the middle of the twelfth century; but ages clapsed before the process of making it became practised as an art. Michael Savonarole, who wrote a treatise in Latin on the Art of Making Spirit of Wine, an edition of which was published in 1560, more than a century after his death, informs us that it was only used as a medicine. The physicians of those days attributed to it the important property of prolonging life, and on this account, it was called aqua vitæ, water of life.

## UNCERTAIN TEST OF SPIRIT OF WINE.

THE most common way of testing the strength of alcohol is to put a small quantity of gunpowder into a cup and to pour a small portion of the spirit upon it, so as to moisten it; the spirit is then inflamed, and if, when burnt out, it fires the powder, the spirit is accounted good. This, however, is but a very erroneous test, as a weak spirit may fire the powder if but a small portion is dropped on it, the quantity of water which it contains not being sufficient to wet the powder throughout; whilst a stronger spirit if applied in large quantity, may leave a sufficient portion of water to prevent the firing. A more perfect test is to fill a large vial with spirit and then drop into it a lump of pearlash, which has been heated very hot over the fire to expel its moisture, and which has not afterwards been suffired to become cold; the vial is then to be shaken, and if the lump remains dry or nearly so, the spirit is good; but if any considerable portion of it be dissolved, the spirit is unfit for use.

## EMBEGGLING IN ECCTLAND.

THE means taken to remedy an evil are often the means of increasing it. This has been illustrated in the recent origin of the progress of Smoggling in Scotland. Previous to the year 1793. Smuggling, except by a few individuals, was not practised by the people. So rare and fittle practised was distillation of any kind, either legal or illegal, till towards the end of the last century, that a man on the estate of Garth got the appellation of " Donahl Whisky ' because he was a distifler, dealer, and sometimes a smuggler of that spirit. The small quantity of grain produced at that period was quite insufficient for the consumption of the country, especially as the glens were more populous than now, and rum, brandy Hollands, ale, and small beer, were in more general use than whisky, which was considered a vulgar drink. It is a curious fact that, on if the legal distillation of whisky was prohibited in the Highlands, it was never drank at gentlemen's tables. " Mountain dew" and such poetic names are of modern invention, since this liquor became fashionable; and when the gentry preferred the native spirit, others followed their example.

# EMUGGIED WHISKY,

MANY persons are accustomed to prize Smuggled Whisky above the legitimate spirit; though others regard the preference as a functful distinction. A remarkable fact, related by Major-general Grant, encourages this pre-

ference, although it does not explain it. He informs us\* that a spirit of the best quality and flavour has been distilled by men with their apparatus at the side of a burn, and perhaps changing weekly from fear of discovery; malting in the open heath far up the hills, and hurrying on the whole process to avoid detection; yet, with all these disadvantages, they received the highest price in the market for the spirit thus manufactured. The quantity might, perhaps, be less than what could be produced by a more regular process of distillation; but then the liquor was so much superior in quality and flavour as to compensate for the deficient quantity. Several of these men have been employed by way of experiment in a licensed distillery, on the estate of Garth, with directions to proceed in their own way, only to be regulated by the laws under the control of an officer; yet, with the advantage of the best utensils, the purest water, and the best fuel, they produced a spirit quite interior in quality and flavour to what they made under the shelter of a rock, or in a burn, and it sustained neither the same price nor character in the market.

# ADULTERATION OF SPIRITS.

THE British distillers have been in the hebit of ameliorating the flavour of their Spirit, by adding a little sulphuric acid to the wash, and a great outcry has been raised against them for so doing; but the experiments of M. Dubue have proved that the practice is harmless.

## PALE SPIRITS.

Many persons attach to pale Spirits a value beyond their worth. The paleness is no criterion of excellence, since pure spirit of any kind has no colour: that of commerce has always derived it from artificial additions, as burnt sugar, &c., or from some matter dissolved away from the timber of the cask which contains it. On the latter account, white brandy is rarely seen, even in France.

#### BRANDY IN PRESERVING.

WRITING PAPER, dipped in Brandy, is usually put over jams and jellies, to keep them, whereas it has the contrary effect; for the spirit soon evaporates, and the watery particles produce mouldiness.

\* In the Quarterly Journal of Agriculture. † Donovan.

# LIGHTING AND HEATING.

# COMPARATIVE LIGHT OF WAX AND TALLOW.

MANY erroneous notions are entertained of the relative economy of Wax and Tallow Candles, which may be corrected by the following experiment from a French jour The candles burnt were of the same length and weight, and composed of these substances: -1. the wax of Japan : 2. white or bleached bees' wax : 3. tallow : 4. a composition of two thirds was of Japan, and onethird tallow; 5, a composition of three-fourths of the same wax, and one fourth of bees' wax. It was found, on extinguishing these candles, when reduced to about one-fourth of their length, that the remains of those made of wax of Japan, of tallow, and of the compositions of wax and tallow, were of the same length; that the bees' was candle was diminished two ninths less than those before mentioned; and that the candle in the formation of which two waxes were united, was of intermediate length. By careful experiment, it has been proved that the flame of a tallow candle is far more brilliant than that of wax lights: composition candles are equal in vividness of light, excepting always that into the composition of which there enters a portion of tallow, which is next, though at a wide interval, to the tillow candle. Dr Ure has ascertained that a mould candle will burn half an hour longer than a dipped candle of the same size, and give rather more light. The Doctor has also proved that in candles generally the larger the flame, the greater the economy of light.

## STORE CANDLES.

That Candles improve by keeping is well known; but the proper season for storing them is not so clearly understood. A quantity of air and water are held in solution in all candles which have not been kept for some time; hence those made in March are better than others, evaporation having generally taken place before they are required for use, owing to the length of the day.

# SPERMADETT:

SPERMACETI is erroneously supposed to be found in the cranium of the long headed whale, whereas it is the fat of that animal. Formerly, and indeed not long since,

Spermaceti was only used as a medicine, and annually many tons of it were thrown into the Thames as useless, the quantity brought to this country being so much more than was required for medicinal purposes. It has, however, become very valuable since candles have been made of it, mixed with tallow or wax. Of Spermaceti, 7000

tons were brought to England in 1831.

The following note, subjoined by the poet Southey to his Thulaba, ii. 155, throws some light upon the rare employment of Spermaceti in this country:—" The common people of England have long been unacquainted with the change which muscular fibre undergoes (when it is converted into adipocere). Before the circumstance was known to philosophers, I have heard them express a dislike and loathing to Spermaceti, because it was dead men's fat."

# MANAGEMENT OF LAMPS.

In few branches of manufacture has the ingenuity of artisans been better displayed than in the construction of Lamps of various forms and principles. Yet many of these inventions have failed in the hands of unskilful persons, to the injury of the inventors. It is, therefore, obvious that such contrivances must always depend for their satisfactory performance too much on the careful management of the trimmer, to be fairly estimated: hence a lamp that burns beautifully in the laboratory, will often totally fail in the kitchen.

## ECONOMY OF GAS-BURNERS.

It is very generally believed by workmen and others, that the more freely the current of air is admitted to an Argand Gas burner, the better will be the light; and hence the burners of glass chimneys in ordinary use are made in such a way as to favour this view. No practice, however, can be more incorrect, or can lead to less economical results. An attentive observation of what takes place will show that there is only a certain proportion of air required

<sup>\*</sup> The importance of simplicity in contrivances for popular use has been shown in the late Lieutenant Drummond's apparatus for illuminating lighthouses with his oxy-hydrogen light: that is a stream of oxygen and another of hydrogen, directed upon a ball of lime. Experimentally, the light has succeeded beyond the expectation of the inventor; but the machinery or apparatus remains to be simplified before it can be worked by the keepers of lighthouses.

for the favourable combustion of a definite measure of gas. If more air than this due proportion be allowed to pass up the chimney, the size of the flame will be reduced, and the quantity of light diminished: if, on the other hand, less than the due proportion be admitted, the surface of the flame will be increased by elongation; but it will become obscure, and the quantity of light will decrease, owing to the escape of particles of unconsumed carbon\*.

With respect to the economy of street lights, it may be mentioned that the large bat-wing, so much used in large public lamps, is wasteful smokes the lantern, and does not

give light in proportion to its expenditure.

Gas light is indebted for its rapid diffusion, not more to its peculiar softness, clearness, and unvarying intensity, than to its comparative cheapness. According to Dr. Thomson, if we value the quantity of light given by 1 lb. of tallow in candles at 1s., an equal quantity of light from coal gas will not cost more than 2 d., being less than a fourth part of the cost of the former.

# SMOKE FROM GAS-LIGHTS.

It is pretty generally imagined that the smoking of ceilings is occasioned by impurity in the Gas, whereas, in this case there is no connexion between the deposition of soot and the quality of the Gas. The evil arises either from the flame being raised so high that some of its forked points give out smoke, or more frequently from a carcless mode of lighting. If, when lighting the lamps, the stopcock be opened suddenly, and a burst of gas be permitted to escape before the match be applied to light it, then a strong puff follows the lighting of each burner, and a cloud of black smoke rises to the ceiling. This, in many houses and shops, is repeated daily, and the inevitable consequence is a blackened ceiling. In some well regulated houses, the glasses are taken off and wiped every day, and before they are put on again, the match is applied to the lip of the burner, and the stopcock cautiously opened, so that no more gas escapes than is sufficient to make a ring of blue flame; the glasses being then put on quite straight, the stopcocks are gently turned, until the flames stand at three inches high. When this is done, few chimneyglasses will be broken, and the ceilings will not be blackened for yearst.

<sup>\*</sup> Sir John Robison.

t Sir John Robison.

## COALS MORE VALUABLE THAN GOLD.

In respect to the natural supply of Coal, Britain, among the nations, is most singularly favoured: much of the surface of the country conceals under it continuous and thick beds of that valuable mineral,—vastly more precious to the country than would have been mines of the precious metals, like those of Peru and Mexico; for coal, since applied to the steam-engine, is really hoarded power, applicable to almost any purpose which human labour, directed by ingenuity, can accomplish\*.

"Whenever you meet with coals, in old accounts, you are to understand thereby charcoal, not sea-coal; which has not been in common use (as well as I can guess,) 150 years; at least, not in London; though I find them in M. Paris, under the name of Carbo marinus, in the time of H. III.

in additament+."

# EXHAUSTION OF BRITISH COAL-MINES.

THE importance of Coal as a necessary of life, and the degree in which our superiority in arts and manufactures depends upon our obtaining supplies of it at a cheap rate. has naturally attracted a great deal of attention to the question as to the period when the Exhaustion of our Coalmines may be anticipated. But the investigation- hitherto made as to the magnitude and thickness of the different coal beds, and the extent to which they may be wrought, are too vague and unsatisfactory to afford grounds for forming anything like a tolerably near approximation to a solution of this question. But, such as they are, they are sufficient to show that many centuries must elapse before posterity can feel any serious difficulties from a diminished supply of coal. According to Mr. Taylor, an experienced coal-owner, the coal fields of Durham and Northumberland are adequate to furnish the present annual supply for more than 1700 years. Dr. Buckland, the celebrated geologist, considers this estimate as very greatly exeggerated; but, in his examination before the committee of the House of Commons, he quotes and approves a passage from Bakewell's Geology, in which it is stated that the coal-beds in South Wales are alone sufficient to supply the whole present demand of England for coal for

<sup>\*</sup> Macculloch, † Bishop Fleetwood's Chronicum Preciosum, 1770.

2000 years. Mr. Macculloch observes: "it is, therefore, quite idle either to prohibit, or impose heavy duties on, the exportation of coal, on the ground of its accelerating the exhaustion of the mines."

#### PERPETUITY OF COALS.

A DISTINGUISHED geologist thus eloquently elucidates the seventh stage of the long eventful history of Coal. when, having been "burnt," it seems to the vulgar eye to undergo annihilation :- "Its elements are, indeed, released from the mineral combinations they have maintained for ages, but their apparent destruction is only the commencement of new successions of change and of activity. Set free from their long imprisonment, they return to their native atmosphere, from which they were absorbed to take part in the primeval vegetation of the earth. To-morrow, they may contribute to the substance of timber, in the trees of our existing forests; and having for a while resumed their place in the living vegetable kingdom, may, ere long, be applied a second time to the use and benefit of man. And when decay or fire shall once more consign them to the earth, or to the atmosphere. the same elements will enter on some further department of their perpetual ministration, in the economy of the material world."

## WASTE OF COALS.

Or the prodigious quantity of Coals consumed in London, a very considerable portion escapes combustion, and lodges in the form of soot in our chimneys, or is vomited forth to contaminate and cloud the atmosphere of the metropolis. So great is the loss, that, independently of the mere advantage of getting rid of smoke, its prevention is an important economical problem; and, though the rage for smoke-burning has passed over, we are convinced that, of the fuel consumed in the ordinary process of warming our houses and cooking food, at least one-third is uselessly thrown away, and might be saved by a more economical and scientific construction of common grates and fire-places.

\* Dr. Buckland's Bridgewater Treatise. † Brande.

# SALE OF COALS BY WEIGHT AND MEASURE.

Till the year 1831, all Coals imported into the Thames, instead of being sold by weight, were sold by measure. It is curious to observe the sort of abuses to which this practice gave rise. It is stated by the celebrated mathematician, Dr. Hutton, who, being a native of Newcastle, was well acquainted with the coal trade, that, "If one coal measuring exactly a cubit yard, (nearly equal to five bolls,) be broken into pieces of a moderate size, it will measure seven bolls and a half; if broken very small it will measure nine bolls; which shows that the proportion of the weight to the measure depends upon the size of the coals; therefore, accounting by weight is the most rational method."

# "BRASS-PLATE COAL-MERCHANTS."

MIDDLE-MEN, when numerous in retail trades, enhance the prices of the commodities they deal in without equivalent good to the purchaser. This is especially the case in the Coal-trade. In the late examination by Parliament into the state of the Coal-trade, it appears that five-sixths of the London public are supplied by a class of middle-men, who are called in the trade "Brass-plate Coal-merchants." They consist of persons who have no wharfs, but merely give their orders to some true coal-merchant, who sends in the Coals from his wharf. The Brass-plate Coal-merchant, of course, receives a commission for his agency, which is just so much loss to the consumer.

# "CANNEL COAL."

There has been considerable dispute respecting the origin of this Error or corrupt term. Sir George Head, when on his Home Tour, took some pains while at Liverpool, and subsequently at Kendal, St. Helen's, and other places, to obtain the meaning of the phrase. Some of this coal is procured at St. Helen's, but the greater quantity comes from Wigan, and is dug out of the same shafts with ordinary coal, although existing in different seams. It appears to be a substance between ordinary coal and jet. In Liverpool and elsewhere it is advertised by boards and placards: "Coal and Cannel Coal sold here," and is invariably spelt "Cannel." If it have really taken its name

from Kendal, the people of this town are not aware of such origin; neither is there any reason that it should originally have been called Cannel Coal, it having been dug before canals were adopted, and transported together with larger quantities of ordinary coal. It seems to be the general opinion that, having been used to light the men at their work, and serving as candle, it became by corruption "Cannel" Coal. It is singular how soon words and phrases creep into use, and totally obliterate every recollection of the cause that produced them".

## ECONOMY OF CORE AND COAL.

Core is not so economical as is generally supposed. It is true that a pound of Coke produces nearly as much heat as a pound of Coal; but it is equally true that a pound of Coal gives only three-quarters of a pound of Coke, notwithstanding the latter is more bulky than the former.

# WASTE OF FUEL.

GILBERT WHITE has well observed that "the very poor are always the worst economists, and, therefore, must continue very poor;" the truth of which remark is strikingly evident in the mode in which the poorer classes use the fuel they have, than which nothing can be much worse or less judicious. Indeed, poor persons make less of the little fuel they have than the richer classes. Still, the poor must not be altogether blamed; for the improvements in fire-places by scientific men have done a great deal for the fire places of the rich, but nothing for the habitations of the poor. It is true that about thirty or forty years ago, Count Rumford published some Essays on this branch of economy; but it was not then to the taste of the people to study the subject, and very few architects understood the Essays. If the advantages were clearly shown to the poor, they would avail themselves of the improvements; for the poorer classes are not, in this country, wedded to old systems; "there are so many novelties exhibiting every day that they do not believe that the world is always to be as it is now f."

It is wasteful to wet fuel because the moisture in being

<sup>\*</sup> Sir George Hend's Home Tour,

<sup>†</sup> Dr. Arnott's Evidence before the Committee of the House of Commons on the Health of Towns.

evaporated carries off with it as atent, and therefore useless heat, a considerable proportion of what the combustion produces. It is a very common prejudice that the wetting of coal, by making it last longer, is effecting a great saving; but while, in truth, it restrains the combustion, and for a time makes a bad fire, it also wastes the heat\*.

#### WARMING BUILDINGS.

THE first requisite is a complete combustion of the fuel; and the second, a complete delivery of the heat evolved in the place intended to be warmed. Nothing could be more wasteful of fuel than common open fireplaces: only one part in fifty radiates into the room, the great body of heat going up with the draft of the chimnev. If a kettle of water be placed before the fire, it will not boil in less than twenty-four hours: placed over the fire, it boils in half-an hour. If a man stand in front of the fire, he gets only half warmed; the half next the fire is warmed, while the half away from it is chilled; but, if he were to place himself in the line of the draft over the fire, he would be burnt to a cinder all around. The ancient Romans understood these things better than the moderns: they carried their flues horizontally under the pavement of the chamber to be heated. A few stoves on the same principle have been erected in and near London with similar success. These simple contrivances produce a saving of eleven-twelfths of the fuel consumed to obtain the same warmth by hot-air and hot-water stoves, and with perfect freedom from dirt, dust, smoke, and impurity of every kindt.

Dr. Arnott remarks, with truth, that the whole science and philosophy of heat have hitherto been not well understood, that there have been many Popular Errors upon this subject, and many reasons given that have been fruitless; but that the facts, now familiar to all minds, will make the reason clear, and a very important change may be effected soon. The ventilation and warming of houses go together: the people being warmed, the ventilation will improve

# \* Dr. Arnott.

<sup>†</sup> Loudon's Architectural Magazine. Close stoves for heating apartments by the slow combustion of a large body of Coke by a slow current of air, are very uneconomical, and produce deleterious effects on those frequenting such apartments.—Dr. Ure.

itself; it was left to mere accident and misapprehension of what is going on, and when parties have interfered with it, it has been to make it worse than before: some egregious blunders have produced injury instead of benefit\*.

## DRAFT IN CHIMNEYS.

When a fire is lighted in a stove-grate, the air in the Chimney over it becomes heated by the fire, and therefore lighter than the external atmosphere, and consequently, it ascends. Thus is produced what is called a Draft in the Chimney, which is merely the upward current of air produced by the ascent of the heated air confined in the flue. When a grate has remained for some time without having a fire in it, the chimney, grate, &c. become cold, and when the fire is first lit, it does not heat the air fast enough to produce a current necessary for the draft; and as the smoke will not ascend, it issues into the apartment. This effect is often attributed to the supposed foulness of the chimney instead of the above cause: for after the grate and flue become warm, the draft is restored, and the chimney ceases to smoke.

# TALL CHIMNEYS.

The important uses of lofty Chimneys, such as we see in all manufacturing towns, is not merely to carry the smoke to a great height, and thus get rid of the nuisance, but to increase the draught through furnaces. Oftentimes the heat of the smoke in these chimneys is so great, that it burns as a flame or great lamp, on reaching the air at the top; an appearance which persons uninformed on the subject have mistaken for a chimney on fire.

# REATING BY GAS.

It is greatly to be feared that the health of the public is frequently sacrificed in what are falsely termed improvements "upon scientific principles." Such we take to be the case with "Gas stoves," or stoves for applying carburetted hydrogen and pure hydrogen gases to the purposes of warming buildings. Sir John Robison, in a paper read before the Society of Arts for Scotland, March 13, 1809, observes: "the various forms of stoves have

\* Evidence before the House of Commons on the Health of Towns.

been proposed, on the understanding, it would appear, that, by applying the 'flame of the gas' to metallic bodies. an increased degree of heat would be communicated by them to the atmosphere around. A little consideration will show, that however the distribution of heat may be modified by such contrivances, there can be no increase of the heating power; and that when a certain measure of gas is fairly burned, the heat evolved into the apartment will be the same whether the flame be disposed as a light, or made to play against metallic plates or other combinations of apparatus. In all cases where the products of the combustion are allowed to mix with the atmosphere of the apartment. without provision being made for carrying them off by ventilation, the effects of such processes must be more or less deleterious to health, according to the proportion these products bear to the mass of air they mix in. On the whole, it may be assumed, that this mode of heating apartments is the most expensive, the least efficient, and, excepting that by Joyce's charcoal stove, the most insalubrious that can be resorted to."

# EXPERIMENTAL VENTILATION.

Undustredly, ignorance is often sanctioned "by way of experiment." Dr. Arnott, in his Evidence before the House of Commons, on the Health of Towns, observes: "The Errors committed from want of knowledge are extraordinary. I heard, at the Zoological Gardens, of a class of animals where fifty out of sixty were killed in a month by putting them in a house with no opening in it but a few inches in the floor: it was like putting them under an extinguisher; and this was supposed to be done upon scientific principles."

# RAKING OUT THE FIRE.

This short-sighted measure of economy, so far from being conducive to safety, is attended with great danger. It was observed to the British Association, in 1838, that "Newcastle, notwithstanding the vast consumption of coal in the town, is remarkably free from fires of dangerous magnitude: and it was suggested whether, as the greater number of fires occurred in London about eleven o'clock at night, the practice of Raking out the Fire at bed-time, which is not done at Newcastle where coals are cleap, might not have some connexion with these conflagrations."

# DISTANCES OF "FIRES."

A convengention at night appears to spectators, generally, as if much nearer than it really is; and unthinking persons frequently run towards it with the expectation of reaching the spot every instant, and are thus led considerable distances. The cause of this miscalculation of distance is the intense brightness of the fire in contrast with the darkness of the night.

# EXTINCTION OF "FIRES."

THE destruction of property by Fire is often accelerated by the very means adopted for its preservation. been shown in the following sensible instructions in the Examiner newspaper: "Next to the safety of the inhabitants, the object at a fire should be the exclusion of all fresh and the confinement of all burnt air -sufficate the flames remember that burnt air is as great, if not a greater enemy to combustion, than even water; the one, till again mixed with oxygen, can never support flame; the other, especially if poured on heated metal, is converted into its elements: the one hydrogen, in itself most highly inflammable, the other oxygen, the food of fire. For both purposes, of excluding the one air and confining the other, all openings should be kept as carefully closed as possible -- the prevailing practice of breaking windows is peculiarly mischievous. The only excuse for this is the admission of water; but, if the firemen were provided with proper self supporting ladders, (that need not lean against the walls,) they might direct their branches through a single broken pane with ten times more accuracy than by their random squirting from the street. Water should be made to beat out the fire by its impetus; aspersion is useless."

# THE SUN EXTINGUISHING THE PIRE.

THERE is a common opinion, that the direct action of the rays of the Sun diminishes the combustion of a common Fire. This notion has often been ridiculed as erroneous; and, with a view to put it to the test of experiment, Dr M Keever ascertained the actual rate of combustion of well known bodies, in different circumstances. It appears from these trials, that the quantity of wax taper consumed in broad sunshine, in the open air, is less than that consumed in a darkened room, in the same time, in the pro-

portion of ten to eleven. When the experiment was made with a common mould candle, an inch in length was consumed in fifty-nine minutes, in strong sunshine, temperature eighty degrees; in fifty-six minutes, in a darkened room, temperature sixty-eight degrees. Other trials were made to ascertain the effect of the different coloured rays of the prismatic spectrum on combustion, and it was found to proceed most rapidly in the verge of the violet ray. The times of consuming the same length of taper in the different portions of the spectrum were, in the red ray eight minutes; green ray, eight minutes, twenty seconds; violet ray, eight minutes, thirty-nine seconds; verge of the violet ray, eight minutes, fifty-seven seconds. The common opinion is therefore correct; but the difference is not so considerable as might be expected.

#### POKER ACROSS THE FIRE.

Boswell and Johnson held a conversation upon this experiment, as follows: Boswell.—" Why, Sir, do people play this trick which I observe now, when I look at your grate, putting the shovel against it to make the fire burn?" Johnson.—" They play the trick, but it does not make the fire burn. There is a better (setting the poker perpendicularly up at right angles with the grate). In days of superstition they thought, as it made a cross with the bars, it would drive away the witch."

Upon the above it is noted: "it certainly does make the fire burn: by repelling the air, it throws a blast on the fire, and so performs the part, in some degree, of a blower or bellows.—Kearney. Dr. Kearney's observations apply only to the shovel; but by those who have faith in the experiment, the poker is supposed to be equally efficacious. After all, it is possible that there may be some magnetic or electrical influence which, in the progress of science, may be explained; and what has been thought a vulgar trick may be proved to be a philosophical experiment."

# DOES THE WATER BOIL ?

THE common mode of judging whether the Water in a saucepan over the fire boils, is by the heat at the surface; but this must be an erroneous method. Thus, when a vessel of cold water is placed over a fire, the layer of water

<sup>·</sup> Croker's edition of Boswell's Life of Johnson.

at the bottom, and next the fire, first becomes hot: it also becomes specifically lighter, and consequently rises through the water in the same manner as a cork or any other light body would rise. This portion of heated water having been thus removed by its lightness, the next layer, now in contact with the bottom, becomes heated in its turn, and ascends; and so on, layer after layer is heated and ascends until the water boils. It should be added, that as soon as a layer of water at some depth from the surface receives a portion of caloric, instead of transmitting it to the layer next beneath, it ascends to the top; so that, at the same moment, the water at the bottom of the saucepan may be heating, that at the top may be very hot, and that in the middle may be nearly cold; and this will be the case until the whole body of water has reached the boiling point.

It is a sad waste to add to the fire beneath a pot of boiling water: for the water, when it has once begun to boil, receives no increase of heat, even from the hottest fire. The reason is this, that the additional caloric goes to form steam, and ascends with it into the air. The steam itself. when formed, may, however, be raised to a much higher

degree of temperature.

## POLISHED FIRE-IROSS.

THE Polish of Fire-irons is commonly thought to be ornamental, and nothing more; but it is also of use and convenience. A set of bright irons may remain for a long time in front of a fierce fire without becoming hot, because the heat of the fire is all reflected by the polished surface, and none of it is absorbed; but if a set of rough, unpolished irons were thus placed before the fire, they would soon become hot, so as not to be used without inconvenience, as a kitchen poker soon becomes so hot that it cannot be held without pain.

The above will also explain why polished fire-irons in general use, are less liable to rust than those which are unpolished.

# CAST-IHON AND BRIGHT STOVES.

A stove made of cast-iron is much more economical in every respect than that which has a highly polished front, which is the worst radiator of heat; whereas, the unpolished surface is favourable to radiation, and a fire in such a stove will always produce a more powerful effect.

## STEAM FROM THE KETTLE.

Many persons mistake for Steam the cloudy smoke which issues from the spout of the Kettle. This appearance, however, is produced, not by steam, but by very minute particles of water arising from the condensation of steam in passing through the cold air. These minute particles, floating in the air, become in some degree opaque, and are visible, like the particles of smoke. Such cloudy substances, therefore, are not true vapour or steam, which is perfectly transparent.

# GLASS BROKEN BY HOT WATER.

No person would be so indiscreet as to hazard the breaking of glass by pouring hot water upon it if he but understood the simple means of accounting for its destruction. It is as follows: "If hot water be poured into a glass with a round bottom, the expansion produced by the heat of the water will cause the bottom of the glass to enlarge; while the sides, which are not heated, retain their former dimensions, and, consequently, if the heat be sufficiently intense, the bottom will be forced from the sides. and a crack or flaw will surround that part of the glass by which the sides are united to the bottom. If, however, the glass be previously washed with a little warm water, so that the whole is gradually heated, and, therefore, gradually expanded, then the hot water may be poured in without danger; because, although the bottom will expand as before, yet the sides also enlarge, and the whole vessel undergoes a similar change of heat\*."

## BLACK TEA-POTS.

Before metal Tea-pots were brought into general use, preference was given to the black porcelain tea pots; than which nothing could be more erroneous. They were said to draw the tea better than others; whereas both their colour and material were good radiators of heat, and caused the liquid to cool with the greatest possible rapidity. On the other hand, a bright metal tea-pot is best adapted for the purpose, because it is the worst radiator of heat, and,

<sup>\*</sup> Lardner, on Heat.

therefore, cools as slowly as possible. A polished silver or brass tea-urn will better retain the heat of the water than one of a dull brown colour, such as is most commonly used.

## COOLNESS OF CELLAUS.

Ir in the heat of summer we descend into a cave or Cellar, we are sensible that we are surrounded by a cold atmosphere; but if, in the rigour of a frosty winter, we descend into the same cave, we are alike conscious of the presence of a warm atmosphere. Now, a thermometer suspended in the cave on each of these occasions will show exactly the same temperature; and, in fact, the air of the cave maintains the same temperature at all seasons of the year. The body, however, being in the one case removed from a warm atmosphere into a colder one, and in the other case, from a very cold atmosphere into one of a higher temperature, becomes, in the latter case, sensible of warmth, and in the former of cold\*.

## SENSATION OF HEAT.

There cannot be a more fallacious means of estimating Heat than by the touch. Thus, in the ordinary state of an apartment at any season of the year, the objects which are in it have all the same temperature; and yet to the touch they will feel warm or cold in different degrees: the metallic objects will be coldest; stone and marble, less so; wood, still less so; and carpeting and woollen objects will feel warm. Now, all these objects are exactly at the same temperature, as may be ascertained by the thermometer.

## EXPANSION OF IRON.

"As hard as Iron" is a common simile to express solidity in a body, but is by no means a correct one; for iron is known to expand and contract according to the state of the atmosphere. Thus, an iron gate which, during a cold day, may be easily shut and opened, in a warm day may stick, owing to there being greater expansion of it and the neighbouring railing than of the earth on which they are placed. The centre of an arch of an iron bridge is also higher in warm than in cold weather; while, on the contrary, in a suspension or chain bridge, the centre is lowered.

. Lardner, on Heat.

## A PIANO-FORTE OUT OF TUNE.

A PIANO-FORTE which has been tuned in the morning is but imperfectly in tune when the room in which it is placed has become overheated by a crowded evening party. The tuner is then blamed by unthinking persons; but the fact is, the pitch of the instrument is lowered by the heat causing the expansion of the strings to be greater than that of the wood-work frame.

## AIRING ROOMS.

It is a common mistake to open all the lower part of the windows of an apartment; whereas, if the upper part, also, were opened, the object would be more speedily Thus, the air in an apartment is generally effected. heated to a higher temperature than the external air, either by the heat supplied by the human body, or by lamps, candles, or fires. This renders it lighter than the external air; and, consequently, the external air will rush in at all openings at the lower part of the room, while the warmer and lighter air passes out at the higher openings. candle be held in the doorway near the door, it will be found that the flame will be blown inwards; but, if it be raised nearly to the top of the doorway, it will be blown The warm air, in this case, flows out at the outwards. top, while the cold air flows in at the bottom.

A current of warm air from the room is generally rushing up the flue of the chimney; if the flue be open, even though there should be no fire lighted in the stove; hence the unwholesomeness of using chimney boards.

# SECURITY FROM INTENSE HEAT.

Strangers on visiting a glass-house universally wonder at the possibility of the workmen existing in a situation in which their clothes are continually scorched, whilst their naked skin exhibits no marks of the effects of fire. Mr. C. T. Coathupe, from a series of experiments\* made to ascertain the cause of this anomaly, infers that the copious perspiration which exudes from the skin of glassmakers, and of those who are engaged in similar scorching occupations, is a sufficient protection from the burning effects of a dry atmosphere of from 300 to 400 degrees

<sup>\*</sup> Communicated to the Philosophical Magazine, Third Scries, No. 108, August, 1840

of Fahrenheit; and that whilst the clothes of such persons are burning to tinder, their skin may be rendered insensible to the direct effects of fire upon the inanimate matter around them, by simple natural laws, viz. those of Evaporation.

## FIRE-PROOF FEATS.

THE feats sometimes performed by quacks and mountebanks, in exposing their bodies to flerce temperatures. have decrived thousands, and may be explained as follows: When a man goes into an oven raised to a very high temperature, he takes care to have under his feet a thick mat of straw, wool, or other non-conducting substance, upon which he may stand unharmed at the proposed temperature. His body is surrounded with very hot air, it is true; but the extreme thinness of this fluid causes all that portion of it in contact with the body at any given time to produce but a slight effect in communicating heat. The exhibitor always takes care to be out of contact with any good conducting substance; and when he exhibits the effect produced by the oven in which he is inclosed upon other objects, he takes equal care to place them in a condition very different from that in which he himself is placed: he exposes them to the effect of metal or other good conductors. Meat has been exhibited, dressed in the apartment with the exhibitor: a metal surface is in such a case provided, and, probably, heated to a much higher temperature than the atmosphere which surrounds the exhibitor".

# GOLD FIRH IN A GLASS.

A SINGLE Gold Fish in a circular vase is often mistaken for two fishes, because it is seen as well by light bent through the upper surface of the water, as by straight rays passing through the side of the glass.

#### ACCIDENTAL BURNING-GLASSES.

It is a common piece of neglect to leave bottles or goblets of water in sunny windows, and these have acted as Burning Glasses, and set fire to the curtains or woodwork. A vase holding gold fish is equally dangerous: water inclosed between two glasses, serving as a powerful lens, to draw the rays of the sun to a focus.

\* Lardner, on Heat.

# "FULL TO THE BRIM"

Is a common phrase, used erroneously to denote a vessel entirely filled; since a cup may be filled to the brim, or edge, and not full in the centre; for fluids do not form a surface perfectly horizontal in vessels to which they adhere so as to wet them; but they rise, on the contrary, around the brim of the vessels. Hence, a cup is not absolutely full when it appears so at the edge. Fluids, on the other hand, in vessels to which they do not adhere, sink around the brim, and rise in the centre. Thus, quicksilver in a glass forms a convex surface.

# COLD THAW.

As extreme cold and heat liquefies, persons are apt to remark that certain weather is too Cold for Thaw, when ice is disappearing from around them. This sensation of cold is caused by the absorption of heat in the process of liquefaction: for the ice, in dissolving, takes all the sensible heat of the air and all surrounding objects, and renders it latent. The atmosphere, and every object in it, may thus, in a thaw, be kept at the temperature of 32°; its rising above that temperature being prevented by the fusion of the ice.

# WOOLLEN CLOTHING.

It is not generally understood how Clothing keeps the body cool in hot weather, and warm in cold weather. Clothes are, generally, composed of some light substance, which do not conduct heat; but woollen substances are worse conductors than those which are made of cotton or linen. Thus, a flannel shirt more effectually intercepts or keeps out heat than a linen or cotton one; and whether in warm or in cold climates, attains the end of clothing more effectually. The exchange of woollen for cotton under-shirts in hot weather, is, therefore, an Error. This is further proved by ice being preserved from melting when it is wrapped in blankets, which retard, for a long time, the approach of heat to it These conside ations show the Error of supposing there to be a positive warnth in the materials of clothing. "The thics cloak which guards a Spaniard against the cold of winter, is also, in summer, used by him as protection against the direct rays

of the sun; and while in England, flannel is our warmest article of dress, yet we cannot more effectually preserve ice, than by wrapping the vessel containing it in many folds of the softest flannel \*."

Black cloths are known to be very warm in the sun; but they are far from being so in the shade, especially in cold weather, when the temperature of the air is below that of the surface of the skin.

#### SUMMER CLOTHING.

It is commonly thought, that white hats and dresses are worn in Summer, because they are cool to the eye, or on account of their lightness and thinness. Such however, is not the case: for, the warmth or coolness of clothing depends as well on its colour as its quality. A white dress, or one of a light colour, will always be cooler than one of the same property of a dark colour; and especially so in clear weather, when there is much sunshine. A white or light colour reflects heat copiously, and absorbs little; while a black and dark colour absorbs copiously, and reflects little. Still, fashion has great influence in the matter; for a red dress, which is by no means summer wear, receives less heat than black, blue, green, or yellow.

# WARMTH OF WHITE CLOTHING.

Count Rumford having shown that the warmth of clothing depends much on the polish of the surface of the material of which it is made, concludes, that in choosing our winter garments, those dyes should be avoided which tend most to destroy that polish. Hence, there is reason to think that, contrary to the general opinion, white garments are warmer than any other in cold weather: indeed, if they are well calculated to reflect calorific rays, in summer, they ought to be equally well calculated to relect those friporific rays by which we are inconvenienced in winter. White horses are both less heated in the sun, and less chilled in winter, than those of darker hues.

## SHEETS WARMER THAN BLANKETS.

A BLANKET would be a cooler covering than a Sheet on a summer night; though the reverse be the general opinion. Sheets feel colder than the blankets, because

they are better conductors of heat, and carry off the heat more rapidly from the body; but when, by the continuance of the body between them, they acquire the same temperature, they will then feel even warmer than the blanket itself.

# COALS AT BLACKHEATH.

IT is a commonly-received opinion, that Coals are to be found as near Lo: don as Blackheath, but that the seeking for them is forbidden, on account of the Newcastle coaltrade being so excellent a nursery for seamen. But geologists have ascertained that, the great coal-field of Britain, which is composed of numerous subordinate coalfields, crosses the island in a diagonal direction, the south boundary-line extending from near the mouth of the river Humber, to the south part of the Bristol Channel, on the west coast; and the north boundary-line extending from the south side of the river Tay, in Scotland, westward, by the south side of the Ochil mountains, to near Dunbarton, on the river Clyde: within which boundary-lines, North and South Wales are included. This area is about two hundred and sixty miles in length, and, on an average about one hundred and fifty miles in breadth; and no coal-field of any consequence has been found, either to the north or south of the lines mentioned, excepting some small patches of thin coals of inferior quality; and the coal-field of Brora, in Sutherlandshire, in Scotland, which is far disjoined from any other coal-field.\*

## LOW STOVE GRATES.

If the fact that warm air is more expanded, and therefore, lighter than cold air, were more attended to, the fire in the stove would be placed much nearer the hearth or floor than at present. Warm air should always be admitted at the lower part of a room, because, if admitted above, it forms a stratum, or layer, at the top of the apartment, there remains, and escapes by any aperture to which it may find access. It must, however, be allowed that if there be no means of escape, except at the lower part, the warm air admitted at the top will gradually press the cold air downwards, and force it out through the doors, windows, or flues.

\* Saturday Magazine. K 2

## LIGHT PROM STALE FISH.

Do. He tour has established that the quantity of Light emitted by dead animal substances, is not in proportion to the degree of putrefaction in them, as is commonly supposed; but, on the contrary, the greater the putrescence, the less light is evolved. It would seem, that this element, endowed with pre-eminent elasticity, is the first to escape from the condensed state of combination, in which it had been imprisoned by the powers of life; and it is followed, after some time, by the relatively less elastic gases, the evolution of which contributes to putrefaction.

# TIRRING VESSELS.

Nor only were untinned Vessels formerly considered to be detrimental to health, but likewise those in which any portion of lead was mixed with the fin; this notion. however, has been shown to be erronems, even if the two metals be used in equal quantities.

## TIN ARD TIN-PLATE.

Tissen Plate, such as is used in making saucepans. &c., is mostly termed Tin, a misnomer which must mislead many persons as to the uses of tin. This plate is merely thin from washed with tin, or, as the French call it, fer blane, or white iron. So little tin is used for this purpose, that a vessel which contained a surface of 251 square inches, and which weighed 26 minces, when tinned, has been increased only half an mince in weight: emisequently, half an onnce of the was spread over 254 inches. The method of tinning, by dipping the vessels in melted tin, appears to have been practised in the time

In this country, few articles are made exclusively of tin, the greater part so used is in the state of leaves. or what is called tin fml; for which purpose the tin is hammered and rolled, until it is hardly the thousandth part of an inch in thickness: this is the substance which, covered with a portion of mercury, composes what is called the silvering of looking-glasses. Tin is also of

important use in dyeing.

# DISUSE OF PEWTER-WARE.

The disuse of Pewter-ware, as plates and dishes, has been usually attributed to the introduction of cheap and beautiful pottery. This was not, however, exclusively the cause; for, it was not until the last war with France had raised the price of tin so greatly that pewter disappeared generally; when the pedlar found them a profitable exchange for his wares.

#### BRITANNIA METAL TEAPOTS.

The cheapness of these teapots results mainly from the application of machinery in making them, and the extreme lightness of body with which they can be produced. It is, however, generally overlooked that such lightness is always obtained at the sacrifice of durability, as well as of shape: hence, it is common to find these thin tea-pots sadly bulged and warped from their original form; an effect which the hot water therein used, with the constant lifting and placing the pot upon the table, unitedly produce in a very shert time.

Britannia metal is very fusible, and this property has led to some whimsical mishaps in the attempts of travelling tinkers to mend tea-pots, &c. when injured: the soldering iron has been applied; and, instantly, instead of stopping a small hole, the inexperienced botcher has made

one large enough to receive his thumb.\*

# THE GERMAN SILVER,

Which is now coming into vogue, has been introduced, as its name denotes, by the Germans into Europe; but it is nothing more than the white copper long known in China. It does not contain a single particle of real silver; for it is only an alloy of copper, nickel, and zinc. Although but now getting into general use in England, it has been no novelty to the manufactories of Birmingham for these thirty years.

# spurious gilbing.

MUCH of this work is executed without a particle of gold, but it speedily becomes tarnished and discoloured. The cheap gilding of picture and looking-glass frames

<sup>\*</sup> Treatise on Manufactures in Metal.

is thus executed, and consequently, is liable to these defects; wherefore it is false economy to employ any but

gold leaf.

The common "gilding" metal is copper beaten out into very thin, plates, and afterwards rendered yellow like gold, by exposing them to the funes of zine, without any real mixture of it in the metal. Girgerbread toys for children are mostly gilt with this spurious metal, and, therefore, poisonous, and should be forbidden.

In few situations is the excellence of fine gilding more severely tested than on the points of public buildings, exposed as they are constantly to the weather. They are mostly doubly or triply gilt. Thus, the apex of the London Monument is triply gilt, at the cost of £120. The gilding of the Queen's state carriage is also triple, and cost £033 14s, 6d.; exclusive of the carving, which cost £2504.

# WHAT IS THENAGUE?

The exact nature of Tutenague is still a problem. Some state that intenague is a name given by the Chinese to zinc; others consider it to be an artificial mixture of different metals; while the intenague, which was formerly exported from the East Indies, is pure zine, without any alloy of lead. M. de Guignes affirms, that it is a native mixture of lead and iron, peculiar to China. It has frequently been confounded with the white copper of China, which is of a different composition, and not allowed to be carried out of the empire. Upon the authority of a merchant trading between India and China, tutenague was an article of very extensive commerce between those countries, until the year 1820, when it was supersected by the introduction of German spetter into India.

#### COPPER SPHINGS.

When first it was observed that bars of iron exposed to the action of these typrings became costed with rust, (oxide,) or Copper, the result was described by persons deficient in chemical knowledge as an actual transmutation of the iron into copper; pieces of the former metal appearing to be decomposed in proportion as the oxide of the latter was produced. This Error is the less surprising, when it is considered that, not only were many

appearances, now familiarly explained by chemistry, formerly imperfectly accounted for; but, because travellers, especially, were not always the persons most conversant with such knowledge as might be deemed authentic on these matters.

# TOWN-MADE CUTLERY.

THE mercantile part of the Sheffield trade is performed chiefly by travellers, but the principal shops in London deal directly with the manufacturers at Sheffield. To humour public prejudice in regard to "Town Make," as it is called, and to serve as an advertisement for various retailers in London and other large towns, their connexions in Sheffield keep steel brands, with which their names are placed on the articles, and they thereby pass with the public as the real manufacturers. The truth is, that in London there are no manufactories of such articles to any extent; and the cutlery jobbers could not make a thousandth part requisite for the London consumption. In different workshops in Sheffield, may be seen the steel brands of our famous town makers, and the articles in wholesale quantities being packed up to meet the demand in London for "real town made." This is a standing joke among the Sheffield outlers, at the expense of Cockney credulity".

But, a penalty of 10th per dozen, exclusive of forfeiture, is imposed upon every person having articles of cutlery in his possession for rale, marked with the words, "London," or "London-made," unless the article so marked have been really manufactured within the city of London, or a

distance of twenty miles from it.

## CUTLERY MARKS.

The figure of a hammer stamped on knives and other articles of Curlery, is intended to denote their excellence, though it is often unwarrantable. The act 59 Geo. III. c. 7. gives the manufacturers of cutlery made of wrought steel, the privilege of marking them with the figure of a hammer; and prohibits the manufacturers of any articles of cutlery, edge tools, or hardware, cost or formed in a mould, or manufactured otherwise than by means of a

<sup>\*</sup> für Richard Phillips's Personal Tour.

hammer, from marking or impressing upon them the figure of a hammer, or any symbol or device resembling it, on pain of forfeiting all such articles, and 51, for every dozen.

## USING A RAZOR,

It has long been disputed whether the line of the Blade of a Razor should be straight, or whether it should have a convex edge of considerable curvature, that is, hollowed The matter may be settled by reference to the mode of using a razor, which is by scraping rather than cutting. Did men cut off their beards, the straight blade would be most effectual; but, as almost every one who uses a razor scrapes, the convex edge has the advantage; "passed over the face obliquely from point to heel, or drawn straight downwards, it must of necessity, cut even where a straight-edged razor would do nothing but fret or tear the skin, without removing the heard. After all, it must be admitted, that the advantage which a circular or full-edged razor has over the straight one in point of cutting, arises chiefly from a very defective manner of shaving; so long, however, as this defect exists, so long will the full-edged razor claim a decided superiority, often happens that men, groaning under the operation of shaving, attribute their bleedings and wincings to the badness of the razor, when the principal fault is in themselves."\*

# RAZOR AND HOT WATER.

It was long supposed that the effect of dipping a Razor in Hot Water was to remove from its edge a kind of resinous substance, which was thought to injure its sharpness. Such, however, is not the real effect. The fine edge is given to all blades of steel by tempering them, that is, heating them, and plumping them into cold water. Now, it has been proved by experiment, that the heat of 212° is the exact point at which razor edges are admirably tempered; and, as the heat of boiling water is 212°, by dipping a razor into it, you, as it were, again temper, or give a new edge to the razor.

<sup>\*</sup> Representation of a Reger. The uncertain results of tempering Steel appear to be the only explanation of a low-priced Resor often proving more serviceable than an expensive one.

# ANTIQUITY OF FORKS.

BECKMANN, generally an accredited authority upon domestic antiquities, states Forks to have been brought into use by the Italians, about the end of the fifteenth century: this conjecture being founded on a passage in the Life of Corvinus, king of Hungary, written by an Italian who was resident at his court sometime between the years 1458 and 1490; in which it is mentioned that forks were not used at table, as then in Italy, but that each person took his meat out of the same dish with his fingers. Beckmann likewise states forks not to have been introduced into England until the seventeenth century, his authority being taken from a singular book of Travels, published in 1611, entitled Crudities, by one Coryat, an Englishman, who having seen forks used in Italy, says: "hereupon I myself thought good to imitate the Italian fashion by the forked cutting of meat; not only while I was in Italy, but also in Germany, and oftentimes in England since I came home, being once quipped for that frequent using of my forke, by a certain learned gentleman, a familiar friend of mine, one Mr. Lawrence Whittaker, who in his merry humour, doubted not to call me at table, furcifer, for only using a fork at feeding, but for no other sense."

Upon these two statements, until within these few years, the use of forks in Italy and England was believed to be a modern refinement; and they may probably have given rise to the adage: "fingers were made before forks." In both respects, however, is Beckmann incorrect. First as regards the use of Forks in Italy; we find them mentioned by Peter Damiani, an Italian writer of the eleventh To warn a lady to whom he is writing, of the great danger of setting her heart on luxurious living, he proceeds to tell her a story which he had heard from a " The doge of Venice had married a person of veracity. lady from Constantinople, whose luxury surpassed all imagination. She would not even wash in common water, but had the cruelty to compel her servants to \* \* But, what is most collect rain water for her! monstrous, this wicked creature would not eat with her fingers, but absolutely had her food cut into pieces, rather small (minutius), by her attendants, and then-she actually conveyed them to her mouth with certain golden twopronged forks!" With the judgment which, of course, befell this profligate slave of luxury, we are not concerned; but, we at least discover the important fact, that the luxury of forks was a novelty in Italy in Damiani's days, i. e. about the time of William the Conqueror.

That forks were used in England upwards of three centuries before the date stated by Beckmann, is proved by their being mentioned in an inventory of furniture belonging to Edward I. Yet, Mr. Hallam refers to Beckmann's History of Inventions, whence the above statements

are quoted, as "a work of very great research t."

It should, however, be added, that the erroneous belief here elucidated, may have received some sanction from the comparatively recent introduction of forks into the Highlands of Scotland, where, Dr. Johnson asserts, not only forks, but even knives, have been introduced at table, since the period of the Revolution. Before that period, every man had a knife of his own, as a companion to his dirk or dagger. The men cut the meat into small morsels for the women, who put them into their mouths with their fingers. The use of forks at table was, at first, considered as a superfluous luxury; and, therefore, they were forbidden to convents, as was the case in regard to the congregation of St. Maur.

# ANTIQUITY OF KNIVES.

From an era not now to be ascertained, down to the time of Queen Elizabeth, England was supplied with Knives from the Continent; and, "the knyves of Almagne, knyves of France, knyves of Collogue, are among the articles enumerated in the custom-house rate books of the time of Henry VIII." At what period our native manufacture of knives was introduced, it is impossible to say, In Stow's Chronicle occurs the following passage: "Richard Matthews, on Flete Bridge, was the first Englishman who attayned the perfection of making fine knives and knife hafts; and in the fift year of queen Elizabeth, he obtained a prohibition against all strangers, and others, for bringing any knives into England from beyond the seas, which until that time were brought into this land by shippes lading from Flanders and other places. at that time and for many hundred yeares before, there were made, in divers parts of this kingdom, many coarse

<sup>\*</sup> Quarterly Review. † Hist. Mid. Ages, vol. iii. p. 425.

and uncomely knives; and at this day the best and finest knives in the world are made in London." Although the chronicler, in this passage, directly refers to the early existence and extent of the cutlery trade, inconsiderate copyists have drawn from it a loose statement, to the effect that "knives were first made in England in 1563, by Thomas Mathews, on the Fleet Bridge, London." Against this assertion, besides the testimony of Stow, and the common tradition of the Hallamshire cutlers, has to be set the undoubted fact, that, so early as the year 1417, the cutlers of the metropolis sought and obtained a charter of incorporation from Henry V. That knives were made at Sheffield, at least a century earlier than the preceding date, appears indisputable, from the incidental testimony of the poet Chaucer, who, in his "Reve's Tales," states of the miller of Trompington, that, among other accourrements-

" A Sheffield twytel bare he in his hose."

A twytel, or whittle, was a knife carried by a person who was not entitled to wear a sword. We find "a case of Hallamshire whittles," mentioned by the Earl of Shrewsbury, in a letter to Lord Burleigh, in the year 1575; and "whittell" is, among the Sheffield manufacturers to this day, the name of a common kind of knife.

## BRITISH PORCELAIN AND POTTERY.

The designs upon Forcelain and Earthenware manufactured in Britain, have long been referred to as a proof of the bad taste of the manufacturers; though, in this case, the censure should be thrown upon the public themselves\*. For example, the common earthenware manufacture takes its style of ornament from China, which was brought to this country many years since, and is continued in use to this day. A very great improvement has, however, lately been made in multiplying the copies of superior designs for transfer to the surface of the ware, by printing off cylinders a continuous sheet; but such is the constant demand for the old Chinese barbaric ornaments\*, from the bad taste

\* Indeed, in most cases, it will be found that manufacturers follow, and do not lead, the public taste, as is commonly supposed.

<sup>†</sup> In a Chinese picture, owing to the absence of perspective proportions, an extensive subject is only a collection of portraits of men and things, drawn on the same scale, and placed near one another, and where all the colours are as vividly shown, as if the objects were only a few feet from the eye; there the figures at the bottom or foreground

of the public, that the manufacturers have been compelled to engrave these faulty designs upon the new cylinders; notwithstanding they have, at the same time, produced much more tasteful designs of their own.

# MUSCOVY GLASS.

Mica, in large thin transparent laminæ, is termed Muscovy Glass, from the Russians, especially the Siberians, using it in their windows instead of glass; but it soon becomes soiled, and in some measure loses its transparency by exposure to the air. Another variety of mica in spangles of a yellowish gold, or whitish silver colour, is known all over the world, by the ridiculous names of cat's gold, or cat's silver. The "gilt sand," agold coloured powder which the paper-makers use for ornamental purposes, is only mica in small fragments.

# WRITING INK.

Oth Writings are remarked to retain their colour better than those of later date; a difference which is commonly referred to the ink used, but is not altogether the case. Before the early part of the eighteenth century, alum was not used in the manufacture of paper; now it is; but, on paper manufactured without alum, ink retains its colour better\*.

# INDIAN INK.

This Ink is strangely miscalled Indian; for it is manufactured in China, entirely from lamp-black and gluten, with the addition of a little musk to give it a more agreeable odour.

# POMATUM.

The article now sold under this name, is very different from the original composition. This was called pomatum from its containing apples, pomum, Lat. Gerarde tells us:

are supposed to represent the objects nearest to the spectator, while the figures higher up are supposed to be of more remote objects; all appearing as they might be seen in succession, by a person who had the power of flying over the country. This kind of picture or representation, although not natural if all viewed at once, may communicate more information than a single common painting, for it is equivalent to many such.—Dr. Arnott's Elements of Physics. (This principle has been extensively acted upon in the bird's-eye views of some old engravers, as well as in some pictorial representations of the lines of rivers and roads in our time.)

\* Mr. Reid, in the Philosophical Magazine.

"there is made an ointment with the pulp of apples, and swine's grease, and rose-water, which is used to beautify the face and to take away the roughness of the skin, which is called in shops pomatum, of the apples whereof it is made." As the pomatum of the present day contains not a particle of apple, it is improper to apply the original name to perfumed grease.

# EAU DE COLOGNE.

EVERY dealer in this delightfully perfumed water will tell you that his article is veritable de Farina; but it is essential to know that at Cologne there are no fewer than three Farinas, one only of whom is the genuine descendant of the inventor and proprietor of the secret. Dr. Granville, from inquiries made at Cologne, estimated the whole quantity of Cologne water, actually sold in that town for exportation, to amount to 38,000 bottles annually. It is manifest, therefore, that a large quantity of Eau de Cologne must be spurious; for a much larger quantity than the one just mentioned is consumed in Europe. The facility with which this perfume may be imitated, has probably led to the manufacture of it in most of the large Dutch towns.

## FRENCH WATCHES.

This term, in many instances, applies only to the cases of the articles, which are of French manufacture. Thus, it is estimated that 150,000 watches are annually made in France, and about 200,000 are finished only, the movements of which are made in Switzerland.

#### STANDARD GOLD.

Gold, when refined from all impurities and alloys of inferior metals, is denominated pure, or gold of twenty-four carats, this being the standard of purity recognized by the mint-master and the dealers in gold. In reality, however, there is no gold so very pure, but that it wants about a quarter of a carat of this standard. The carat is divided into  $\frac{1}{4}$ ,  $\frac{1}{16}$ , and  $\frac{1}{34}$ . These degrees serve to distinguish the greater or less quantity of alloy therein contained: for instance, gold of twenty-two carats has two parts of silver, or one part of silver and one of copper, and twenty-two of fine gold: that of twenty-three carats has half a part, or half a twenty-fourth of each\*.

\* Treatise on Manufactures in Metal.

# JEWELLERS GOLD.

This is, by no means, so definite a term as is generally supposed: it may either mean gold of half-standard purity; an alloy of copper, gilt; or a fine yellow composition metal, consisting of copper and zinc in about equal proportions: One or more of these alloys is named "Birmingham gold." Nor must the dark colour of gold articles be taken as a standard of purity; for this appearance is obtained by dipping the articles in a solution of copper.

Foreigners are astonished, and with good reason, that the English government permits the sale of that nondescript substitute for gold, called "Jewellers Gold," which does not even stand the ordeal of aquafortis. It will rarely be taken, even in exchange for similar articles

abroad, where it is called "English compound."

Moraic Gold is an alloy which does not contain a particle of gold, as its name implies; it being merely tin

and sulphur.

The imitation of Gold sold with the taking name of Petit-Or, is nothing more than the alloy formerly called Pinch-back, which is made by melting zinc in a certain proportion with copper and brass, so as in colour to approach that of gold.

# "BEAUTY" OF THE OPAL.

The noble or perfect Opal, as it is termed, is a milky resinous quartz, exhibiting a beautiful display of colours, like those in the rainbow, and varying their shades according to the positions. It is highly prized on account of this brilliant appearance, which, however, arises solely from imperfections, that is, very minute cracks or fissures with which it is filled. When divided, it no longer displays this pleasing and changeable effulgence.\*

#### SAPPHIRE.

Tus term is applied by mineralogists to a precious stone in very high estimation, and, after diamond the hardest substance in nature. But jewellers apply different names to the several varieties of Sapphires: thus, the crimson and carmine red are the oriental ruby of the

\* Newton and Haby.

jeweller; the blue variety is the sapphire; and the yellow the oriental topaz. Another reddish violet variety is the asterias, or star-stone; and the white and pale blue sapphires, by exposure to heat, become snow-white, and when cut, exhibit so high a degree of lustre, that they are used in place of diamond.

## THE RUBY AND DIAMOND.

The Diamond is not unexceptionably the most valuable gem. A perfect Ruby of a carat, or six grains, may be deemed rare, and falls little short of the value of the diamond: nay, in some cases, rubies of two, three, or four carats, if very fine, are much scarcer and even more valuable than diamonds of equal weight. The finest ruby in England, or perhaps, in Europe, is in the collection of the late Mr. Hope, author of Anastasius.

#### CRYSTAL.

This term may be properly applied to any symmetrical solid, whether transparent or opaque, though custom has almost restricted it to colourless bodies; as we say, the crystalline lens of the eye, and of water; "the crystal well." \* On its discovery, the ancients believing it to be water permanently congealed by extreme cold, from its transparency, called it Krustallos, signifying also ice; but in time, the term became used without attention being paid to its original meaning, and was applied to all the regular figures observed in minerals.

Rock Crystal, when of a violet or purple colour, becomes amethyst; when blue, it is the sapphire; when rose-colour, it is the ruby; when yellow, it is the occidental topaz: in short, the crystals take the names of the different gems

which they resemble in colour.

Sir Thomas Browne appropriates a chapter to *Crystal*, commencing thus: "Hereof the common opinion hath been, and still remaineth amongst us, that crystal is nothing else but ice or snow concreted, and by duration of time, congealed beyond liquidation. Of which assertion if prescription of time, and numerosity of assertors, were a sufficient demonstration, we might sit down herein, as an

<sup>&#</sup>x27;His food, the fruits; his drink, the crystal well."

Parnell's Hermit.

-Hence also, the popular comparison "clear as a well."

unquestionable truth; nor should there need ulterior disquisition. For, few opinions there are which have found so many friends, or been so popularly received, through all professions and ages. Pliny is positive in this opinion: \*Crystallus fit gelu vehementius concreto.\* The same is followed by Seneca, elegantly described by Claudian, not denied by Scaliger, somewhere affirmed by Albertus, Brasavolus, and directly by many others. The venerable fathers of the Church have also assented hereto: as Basil, in his Hexameron; Isidore, in his Etymologies; and not only Austin, a Latin friar, but Gregory the Great; and Jerome upon occasion of that term expressed in the first of Ezekiel.

"All which notwithstanding, upon a strict enquiry, we find the matter controvertible, and with much more reason denied than is yet affirmed. For though many have passed it over with easy affirmatives, yet there are also many authors that deny it; and the exact mineralogist hath rejected it. Diodorus, in his eleventh book, denieth it, (if crystal be there taken in its proper acceptation, as Rhodiginus hath used it, and not for a diamond, as Salmasius hath expounded it;) for in that place he affirmeth: 'Crystallum esse lapidem ex aqua pura concretum, non tamen frigore sed divini caloris vi? Solinus, who transcribed Pliny, and, therefore, in almost all subscribed unto him, hath, in this point, dissented from him: ' Putant quidam glacie coire, et in crystallum corporari, sed frustra.' Mathiolus, in his Comment upon Dioscorides, hath, with confidence, rejected The same hath been performed by Agricola de naturá fossilium; by Cardan, Boetius de Boot, Cœsius Bernardus, Sesmertus, and many more."

The chapter extends through nine small quarto pages; and towards the close is Sir Thomas's coincidence with the origin of the Error, as stated above: "The second and most common ground is from the name Crystallus, whereby, in Greek both ice and crystal are expressed; which may not, duly considering, have from their community of name, conceived a community of nature; and what was ascribed unto the one, not unfitly applicable unto the other But this is a fallacy of equivocation, from a society in name inferring an identity in nature. By this fallacy was he deceived, that drank aqua fortis for strong water; by this are they deluded, who conceive spermaceti, which

is found about the head, to be the spawn of the whale: or take Sanguis Draconis (which is the gumine of a tree) to be the blood of a dragon."—(Vulgar Errors, book ii. chap. 1.) The Error of supposing spermaceti to be found only in the head of the long-headed whale, as Browne supposed it to be, has already been explained at p. 112 of the present work.

## PROPERTIES OF THE DIAMOND.

Among the ancient philosophers, effects were continually attributed to causes the most inconsistent, and the most contrary to nature; in fact, merely wild or fanciful guesses. Many, of course, were made as to the origin and properties of the Diamond, respecting which even the chemical philosophers of our own time scarcely agree. But the notions of the ancients about the diamond seem to have been altogether confused and indistinct. It was sometimes considered a talisman, and when under the planet Mars, esteemed favourable. It was supposed to cure insanity, and to be an antidote to poisons; notwithstanding which, Paracelsus was said to have been poisoned by diamondpowder; though it is believed to be as inert in the one case as it is harmless in the other. The Greeks called this gem "unconquerable;" and the name of "Adamant" was given to it in consequence of this suppositious virtue, in that it was esteemed victorious over fire, and capable of resisting the hardest substances. Ancient Greek writers describe the diamond as only found in Ethiopia, between the island Meroe and the temple of Mercury. According to Pliny, there existed between the diamond and the magnet a natural antipathy: "there is," he says, "such a disagreement between a diamond and a loadstone, that it will not suffer the iron to be attracted; or, if the loadstone be put to it, and take hold of it, it will pull it away." (Pliny, lib. 37, chap. 4.) It is needless to observe that no such antipathy can now be discovered in the case. at least," states Mr. John Murray, "have found no diminution of the attractive powers of the magnet, when we interposed between a magnet and a fine needle no less than five fragments of diamond." It has also been stated, that the diamond was able to resist the power of the highest temperature; but it has yielded to the "torture and inquisition of modern chemistry," and its combustibility has been completely ascertained; so that a diamond may be easily consumed by being placed in a cavity of charcoal, and orging on it the flame of a spirit-lamp, by

means of a stream of oxygen.

"Artificial diamonds" are among the scientific curiosities of our day; and, experiment having demonstrated the diamond to be pure crystallised carbon, some approximation has been made to the natural gem, by acting with a powerfulgalvanic battery on charcoal in vacuo, when minute hard crystals were said to be formed round the superior wire. It has also been stated in France, that a solution of phosphorus in sulphuret of carbon yields minute diamonds, Both these processes have, however, proved unsatisfactory,

## HARDNESS OF THE DIAMOND.

Many authors have permitted their fancy to rove on some attribute peculiar to the Diamond, either real or sup-Thus, we are told that a diamond is softened and broken if steeped in the blood of a goat; but not, according to others, unless it be fresh and warm, nor even then fractured, without blows; and that it will also break the best hammers and anvils of iron. Sir Thomas Browne says, that a diamond being steeped in goat's blood rather receives thereby an increase of hardness: "for," he observes, "the best we have are communities without it, and are so far from breaking hammers, that they submit to pistillation and resist not an ordinary pestle." The truth is, as far as the goat's blood is concerned, it makes no difference either way; and we know very well that it is a matter of no difficulty to crush the diamond in a steel mortar; from its lamellar texture it is also capable of being split and cleaved, and jewellers are by these means enabled to work it."

It is, therefore, altogether an Error to suppose that diamonds will not wear out. In the shops of wholesale glaziers, where the diamond is in constant use, one of these instruments is worn down in a month or six weeks, so as to require resetting; after which, with the same wear, it usually lasts another month, and then becomes useless. It may, however, be presumed that diamonds travel over

<sup>\*</sup> Marray, on the Diamond,

some miles of glass before they are worn out. It is, likewise, a singular and interesting fact, that the natural point only of the diamond will cut, whilst that obtained by polishing will not cut, glass.

# PRICES OF DIAMONDS.

WE read marvellous records, (in modern books too,) of the High Prices realised for Diamonds; but, according to Dr. Ure, "it does not appear that any sum exceeding one hundred and fifty thousand pounds has ever been given for a diamond." This statement, made in the year 1820, has since received signal confirmation. On July 20, 1837, was sold, in London, the celebrated Nassuck Diamond, as large as a good-sized walnut, weighing  $357\frac{1}{2}$  grains, of dazzling whiteness, and as pure as a drop of dew; when this magnificent gem, though estimated by the East India Company to be worth 30,000l., realised only 7,200l., or less than one-fourth of its reputed value."

# WHAT ARE PEARLS?

Pearls, it is believed, are caused by a disease in certain fish; but it was formerly believed that the animal might be made to produce them by artificial means. The inhabitants of the shores of the Red Sea were said to have wounded the animals, and returned them into the water; and the Chinese, we are told, insert beads of the nacre into the shell, to be covered by the animal with the pearlaceous substance. Beckmann appears to have been the first among the moderns to have given extended publicity to this opinion, upon the authority of a German work; adding that "the truth of this information cannot be doubted." might happen, we do not mean to deny; but sufficient authority is wanting to prove it, and many powerful reasons are against it. How and when does the reader suppose the pearls were inserted? on a string containing five beads; and the clever Chinese caught the shell when it rose to the surface in the spring to enjoy itself! Of course, next year it had to be caught again to get at them, but how, we are not informed. Beckmann has been servilely copied by most subsequent writers on the subject: he confesses that some

<sup>\*</sup> One of the largest Diamonds in the world, belonging to the House of Braganza, and abou the size of a pullet's egg, is valued by lapidaries in the Brazils, at 300 million pounds sterling.

experiments of the kind were made in Bonemia, without success. Northwaite gives an account, in some respects similar, but still less credible, from a Chinese work; but he himself allows that it does not appear probable. It is time, however, that such fables were exploded, and left out of works professedly scientific, and bearing on the title-page the name of some learned editor, assisted, as we

are told, by "eminent professional gentlemen."

The ancient opinion appears to have been, that pearls were formed by drops of dew falling into the shell, for which purpose it periodically rose to the surface; and Pliny gravely informs us, that if the atmosphere was thick at the time, they were dark and clouded; if it was clear, they were white and brilliant. It is singular that the same belief is found to prevail at the present day, among the natives of Ceylon; and very similar to it is the account of the formation of pearls, recorded in one of the Sanscrit books of the Brahmins. A similar fancy also exists in the interior of Hindostan.

Pearls, from their consisting of carbonate of lime, are, of course, very soluble in acids. Hence may have originated the account of Cleopatra dissolving a pearl in vinegar, and drinking it to Marc Antony's health, at supper; which is now regarded as an historical fiction, to show the inventive talents of the voluptuous queen in her allurements for Antony, in whom she found a companion to her taste. It is, however, pretty certain that a pearl, or pearls, of great

value, were in Cleopatra's possession.

# CLOTHING.

#### BLEACHED AND UNBLEACHED LINEN.

There appears to be an Error in the manufacture of Linen, which it is reasonable to suppose common care might prevent. Flax, of which linen is made, is naturally white, and owes the grey colour which it assumes solely to the processes through which it passed to separate its fibres—as immersion in bog-streams, and other such injurious treatment. The linen is, therefore, necessarily bleached with chlorine, which, if applied in its pure state, and not sufficiently diluted, or otherwise corrected, invariably de-

stroys the strength and texture of the linen; wherefore it is a dangerous agent in the hands of the inexperienced.

In Paris, the blanchisseuses are suspected of employing bleaching liquid in ordinary washing, the effects of which are visible in the rapid deterioration of linen washed by these Frenchwomen.

# COTTON POISONOUS.

POPULAR prejudice long held that Cotton was poisonous: this Error originated in the pain felt on holding a cotton handkerchief to the eyes or nose of a person with a cold in the head; for the cotton, by not allowing passage to the heat, increased the temperature and the distress; whilst a linen or cambric handkerchief, by conducting, would readily absorb the heat, and diminish the inflammation.

## VARIOUS PURS.

THE name of Sable can only be literally applied, with propriety, to the finest skins of the animal called a Sable, a species of weasel, found in the northern parts of Asiatic Russia and America. The colour of this fur is generally of a deep glossy brown, and only occasionally of a fine glossy black, which is most esteemed. Sable skins have sometimes, though rarely, been found yellow and white. Fuch, or the fur of the Fitchet, or Polecat, is principally imported from Germany: it is soft and warm, but the unpleasant smell which is inseparable from it depresses its value. Marten and mink, (the latter commonly called minx,) are principally imported from the United States and Canada. The greatest variety of furs, or wool, as it may be more properly called, is our lamb-skins, which differ so widely from each other in size, quality, colour, and value, that, to most persons, they would appear as the produce of so many different species of animals.

## PRICE OF FURS.

The fluctuating Prices of Furs appear sometimes to border on monopoly or injustice on the part of traders. But furs being entirely the produce of nature, which can neither be cultivated nor increased, their value is not regulated by fashion alone, but depends materially upon the larger or smaller supplies received. The weather has

great influence upon the quality and quantity of furs imported from all quarters of the globe; and this circumstance renders the fur-trade more difficult, and perhaps more precarious, than any other. The quality, and consequently the price, of many furs, will differ every year. It would be impossible to state the value of the different articles of furs, the trade being the most fluctuating imaginable. The same article has risen and fallen 100, 200, and 300 per cent. in the course of a twelvemonth; nay, in several instances, in the space of one month only.

It is a remarkable feature of the fur trade, that almost every country or town which produces export furs, imports and consumes the fur of some other place, frequently the most distant. It is but seldom that an article is consumed in the country where it is produced, though that country may consume furs to a very great extent. Mr. Maculloch, from whose Dictionary of Commerce these particulars are abridged, acknowledges himself indebted for them "to one of the most extensive and intelligent fur-

merchants of London."

# WARMTH OF PUR.

It is commonly thought that Warmth would be best obtained by wearing Fur with the hair inwards, and that the practice of wearing it outwards has been adopted from its ornamental richness. Such, however, is not the case; for fur garments have been found by experience to be much warmer in cold weather when worn with the hair outwards, than when it is turned inwards. Hence the disadvantage of lining cleaks and gloves with fur.

The above is alleged as a proof that we are kept warm by our clothing, not so much by confining the heat of our bodies, as by repelling those frigorific rays which tend to

cool us.

11

# "BEAVER HATS."

The entire Hat is now rarely made of so costly a material as Beaver fur, which is only used to cover the outside. This fur is almost entirely brought from North America. It is gradually becoming scarce and dearer, being now obtainable only in inconsiderable quantities from the most northerly and inaccessible districts. The fur of the middle-aged or young animal, called cub-beaver, is most

esteemed, it being the finest, most glossy, and taking the best dye. There are also used for hatting, the furs of the musquash or musk-rat, otter, neutria, hare, and rabbit.

# " WHALEBONE."

This substance is improperly named, since it has none of the properties of bone: its correct name is baleen. is found attached to the upper jaw, and serves to strain the water which the whale takes into its large mouth, and to retain the small animals on which it subsists. For this purpose, the baleen is in plenty, sometimes 800 pieces in one whale, placed across each other at regular distances,

with the fringed edge towards the mouth.

Seeing that the head furnishes the baleen, the record of the ancient perquisite of our Queens Consort, evinces gross ignorance of the natural economy of the whale. This privilege was, that on the taking of a whale on the British coasts, it should be divided between the King and Queen; the head only being the King's property, and the tail the Queen's. The reason for this whimsical distinction, as assigned by our ancient records, was to furnish the Queen's wardrobe with whalebone!

#### MAROCCO LEATHER

Is not so called from its being brought from Marocco, but from the art of dressing it being originally introduced from that country. The true Marocco leather is made of goat-skins tanned and dyed on their outsides; sheep-skins are also similarly treated. The goat-skins are not only more pliant, but their surface is smoother; they are also more durable than those of sheep, but their employment is restricted on account of their high price.

#### NANKPEN.

NANKEEN or Nankin takes its name from Nankin, in China, where the reddish-yellow thread of which the stuff is made was originally spun. In England, we erroneously apply the term Nankeen to one colour; though, in the East Indies, vast quantities of white, pink, and yellow nankeens, are made.

#### LOGWOOD

SEEMS to have been first brought to England soon after the accession of Queen Elizabeth; but the various and beautiful colours dyed from it proved so fugacious, that a general outery was soon raised against it; and an Act of Parliament was passed in the 23rd year of her reign, which prohibited its use as a dye under severe penalties, and not only authorised, but directed the burning of it, in whatever hands it might be found within the realm; and though this wood was afterwards sometimes clandestinely used, (under the feigned name of blackwood), it continued subject to this prohibition for nearly a hundred years, or until the passing of the Act of 13 and 14 Chas. II.; the preamble of which states the dyers to have learned the art of fixing the colours; though, at this time, the colours of logwood are notoriously deficient in regard to their durability.

#### POISONOUS DVES.

Many cutaneous affections, it is said, of which the cause has hitherto been unknown, are occasioned by the absorption of deleterious dyeing substances. The government of Lombardy, acting upon this suggestion, has issued a law, which, under penalty of confiscation, forbids the use of any poisonous substance, such as arsenic, zinc, lead, and other mineral colours, in the printing or dyeing of fabrics which are intended for clothing, or may come in contact with the human body.

## MOTHS PROM CLOTHES.

An ill-founded opinion prevails, that Moths may be kept from Clothes by placing in or near them camphor, pepper, cedar-wood, Russia leather, &c.; whereas these precautions are useless unless the clothes be also taken out frequently, brushed, and aired. That camphor and the above substances are insufficient to keep away insects, has been proved by moths being hatched in an atmosphere impregnated with camphor, and the substances referred to.

# DEFECTS IN BOOT AND SHOE MAKING.

The defects which arise frem ordinary leather not possessing that degree of pliability and elasticity which is requisite to admit of the natural action of the foot, have led to the introduction of various substitutes. When the foot is under the pressure of the body, it is clongated. This principle of clongation seems to have been long ad-

<sup>\*</sup> Dr. Baneroft, on Permanent Colours,

mitted, inasmuch as all boots and shoes have hitherto been made a little longer than the foot of the wearer; but the difference in the degree of extension in the feet of different individuals appears to have been, in some measure, overlooked, as it rarely happens that allowance is made for this difference; and the result is, that many persons have never obtained shoes long enough for their feet when thus extended, the measurement being generally taken when the foot is not under the pressure of the body. Another important consideration arises from the circumstances connected with the altered position of the foot in walking. As the foot extends in length from heel to toe in proportion to the height of the arch, the strength of the ligaments, and the weight it has to support,—the elongation has been found by actual measurement, to vary from a quarter of an inch to a whole inch.\*

## FRENCH GLOVES.

THE preference given in this country to French Gloves is no matter of fashion or prejudice as is commonly supposed, but of judgment on the part of the purchaser. Not only is the kid finer and better dressed, of which gloves arc made in France, but the gloves themselves are better cut, than in England; and their superior fitting must be from the French manufacturers possessing a correct or scientific knowledge of the shape of the hand, as we gather from the evidence of a first-rate London "warehouseman" before the Parliamentary Committee upon Arts and Manufactures. It should, however, be added, that there are very few manufactures in which the French excel so much as in gloves; and this circumstance has strengthened the evidence in favour of the necessity of establishing Schools of Design in this country, to enable our manufacturers to compete with the taste as well as materials of the Continent.

Although the disposition on the part of our legislature to raise the standard of public taste is full of promise, we are not unmindful that good taste in every department cannot be established by dictation, but must be left to force its way gradually through example; and its rules, when once exemplified, are pretty sure to be followed,

<sup>\*</sup>From a paper read March 15, 1839, to the Edinburgh Society of Arts, by Mr. J. Dowie.

though slowly. Let any one recollect the ugly forms of our ordinary erockery and potters' ware forty or fifty years since, when the shapes were as deformed as that of the pipkin which cost Hobinson Crusoe so much trouble; and otherve the difference since the classical outlines of the Etruscati vases have been adopted as models for our Staffordshire ware.

# PRENCH FASHIONS.

A FEW years since, Mr. Reinagle, R.A., in a lecture delivered by him at the Royal Institution, observed that taste was definable, was reducible to laws, and was not that vague principle that many authors asserted. Hence, the fallacy of the expressions, "It is all a matter of taste," "There is no accounting for tastes," &c. Mr. Reinagle then proceeded to lament that taste in this country was poisoned by the weeds of fashion - that the fair forms of our women and the manly character of our men, were perpetually undergoing tasteless variations by following the fashions of a neighbouring nation, whose character we disliked, but whose costume we imitated. He concluded with a sketch of a lady's head, and said if our ladies would wear such monstrosities of bonnets, they ought to put them on inclining to one side or the other, and not horizontally; so that the oval form produced by such arrangement, might contrast with the beautiful oval forms of their faces, which could not be effected in the fashion at that time. This hint, from a high authority upon matters of taste, will not be lost upon our fair readers.

#### notoths for press.

M. Chevneul. in some novel Experiments on Colours, explains certain incongruities of which few persons are aware. Thus, when the eye has looked at a red object for a considerable time, it has a temlency to see all things tinted with the supplementary colour, green; and hence, if a lady about to purchase a red silk, examine fourteen or fifteen pieces in succession, the four or five last will appear less red to her than the first ones did, although they are identical in colour and brilliancy. The dealer, in this case, ought to show the purchaser some pieces of green silk; and if the eye dwell on them so long that the

normal state of the eye is altered, it will have a tendency to see all things tinted with the complementary colour, red; and then, a piece of red silk presented to her will appear more red than it really is.\*

# "CONTRAST OF COLOURS."

The word "contrast" is here used without a definition, or without an exact comprehension of its meaning. Now, the effect of colours, on being placed together, is produced through the motion of the eye, combined with the law of sensibility of the retina. When we imagine that we are comparing colours, we are really experiencing the effect of the nerve being exhausted by dwelling on one colour, and becoming more susceptible of the opposite colour. There has been a great deal said about contrast and harmony in painting, as resulting from certain colours placed together—the idea being that we see these colours at the same time—whereas, the effect, of which we are sensible, results from alternately looking at the one and the other.†

# YELLOW A VERY PERMANENT COLOUR.

CONTRARY to the general opinion, animal and vegetable Yellows are much more permanent than all other colours. This may be proved by holding a lighted match under a flower, heartscase, for example, when the purple tint will instantly disappear, but the yellow will remain unchanged: the yellow of a wall-flower will continue the same, though the brown streak will be discharged.

# TRADE AND COMMERCE.

# COMMERCE IN PAST AND PRESENT TIMES.

It is a mistake to suppose that the familiar intercourse of nations is a thing of modern growth, and that turnpikeroads and mail coaches, canals and steam-boats, are the only methods by which we can bring together distant lands. Commerce, undoubtedly, does great things in this way now, but so it did heretofore by other ways; and it may even be doubted whether the custom of resorting in person to the great fairs holden in various parts of Europe, lasting for eighteen or twenty days, and whilst they lasted,

\* Translated from the French; in the Literary Gazette † Sir Charles Bell's Bridgewater Treatise. giving to an unenclosed waste the appearance of a populous and well-ordered city: it may be doubted, we say, whether these points of annual concourse did not bring together a greater number of foreigners, (limited as trade then was.) than can be seen upon all the exchanges of a country at this day, when the safe and rapid transmission of letters, and the universal institution of banks, have rendered any closer communication among merchants, for the most part, unnecessary.\*

## PHINCIPLES OF MARKETING

CHEAPRESS is an attraction to the majority of purchasers, though they rarely understand in what actual cheapness consists. Mr. Babbage well observes: "The cost of any article to the purchaser includes, besides supply and demand, another element, which, though often of little importance, is, in many cases, of great consequence. cost, to the purchaser, is the price he pays for any article, added to the cost of verifying the fact of its having that degree of goodness for which he contracts. In some cases, the goodness of the article is evident on mere inspection i and, in those cases, there is not much difference of price The goodness of loaf sugar, for inat different shops. stance, can be discerned almost at a glance; and the consequence is, that the price of it is so uniform, and the profit upon it so small, that no grocer is at all anxious to sell it; whilst, on the other hand, tea, of which it is exceedingly difficult to judge, and which can be adulterated by mixture, so as to deceive the skill even of a practised eye, has a variety of different prices, and is that article which every grocer is most anxious to sell to his customers." After enumerating several instances of fraud on the part of the seller, Mr. Babbage observes: " his object is to get a higher price than his goods would really produce if their quality were known; and the purchaser, if not himself a skilful judge, (which rarely happens to be the case,) must pay some person, in the shape of an additional money price, who has skill to distinguish, and integrity to furnish, articles of the quality agreed on, But, as the confidence of persons in their own judgment is unusually great, large numbers will always flock to the

<sup>\*</sup> Quarterly Review,

cheap dealer, who, thus attracting many customers from the honest tradesman, obliges him to charge a higher price for his judgment and character than, without such competition, he could afford to do\*."

There are other circumstances which influence the price of articles, such as durability, which must be considered

before they can be pronounced cheap.

# MAKING AND MANUFACTURING.

These terms are commonly regarded as synonymous. There is, however, a considerable difference between them. Making refers to the production of a small, Manufacturing to that of a very large, number of individuals. Thus, a person who makes boots for private individuals is correctly termed a boot-maker; but, another who makes boots for the army, is a boot-manufacturer.

## EFFECTS OF NEW INVENTIONS.

The anticipated injury which any New Invention may prove to other interests is mostly inaccurately estimated. On the first establishment of steam-boats from London to Margate, the proprietors of the coaches running on that line of road petitioned parliament against them, as likely to lead to the ruin of the coach-proprietors. It was, however, found that their fear was imaginary; and, in a very few years, the number of coaches on that road was considerably increased, apparently through the very means which were thought to be adverse to it.

# MANUFACTURING BY MACHINERY.

There is no idea so groundless and absurd as that which supposes that an increased facility of production, (as by Machinery,) can, under any circumstances, be injurious to the labourers. The Cotton Manufacture affords one of the most striking proofs of this fact. It is doubtful whether 30,000 persons were employed in all the branches of this manufacture, in 1767, before Arkwright's inventions; whereas, in consequence of those very inventions, which the workmen endeavoured to destroy, there are now upwards of one million persons directly engaged in different departments.

<sup>\*</sup> Economy of Machinery and Manufactures, page 107.

## FRENCH AND ENGLISH MANUFACTURERS.

It has often been held as an argument, and rather pertinaciously adhered to, by manufacturers, that a French article (as sitk) would sell without reference to its peculiar merit, but merely because it is French. Such may have been the case a few years since, but there is now no prejudice of the kind: in purchasing such articles, persons choose that which is most liked, without the question being put whether it is French or English.

# DOMESTIC CHEMISTRY.

THE transformations of Chemistry, by which we are enabled to convert the most apparently useless materials into important objects in the arts, are opening to us every day sources of wealth and convenience, of which former ages had no idea, and which have been pure gifts of science to man. What strange and unexpected re-ults have not this science brought to light in its application to some of the most common objects! Who, for instance, could have conceived that linen rags were capable of producing more than their own weight in sugar, by the single agency of one of the cheapest and most abundant acids, (the sulphuric ?-that dry bones could be a magazine of nutriment, capable of preservation for years, and ready to yield up their sustenance in the form best adapted to the support of life, on the application of that powerful agent, steam, which enters so largely into all our processes, or, of an acid at once cheap and durable?-that sawdust itself is susceptible of conversion into a substance bearing no remote analogy to bread; and though certainly less palatable than that of flour, yet no way disagreeable, and both wholesome and digestible as well as highly nutritive.\* What economy, in all processes where chemical agents are employed, is introduced by the exact knowledge of the proportions in which natural elements unite, and their mutual powers of displaying each other! perfection in all the arts where fire is employed, either in its more violent application, (as, for instance, in the

\* See Dr. Prout's account of the experiments of Professor Anteurieth of Tubingen, Phil. Trans. 1927, p. 391. This discovery, which renders famine next to impossible, deserves a higher degree of celebrity than it has obtained.

smelting of metals by the introduction of well-adapted flues. whereby we obtain the whole produce of the ore in its purest state,) or in its milder forms, as in sugar-refining, the whole modern practice of which depends on a curious and delicate remark of a late eminent scientific chemist. on the nice adjustment of temperature, at which the crystallisation of syrup takes place; and a thousand other arts which it would be tedious to enumerate. We quote these luminous facts from Sir John Herschel's Discourse upon the Study of Natural Philosophy; since, by indicating a few of the brilliant discoveries of modern science, they contribute to the enlightenment of Error. Further, in expatiating upon the advantages of this progress of science, how forcible is the following illustration from the same eloquent pen: "The condition of an European prince is now as far superior, in the command of real comforts and conveniences, to that of one in the Middle Ages, as that to the condition of one of his dependants!"

# " PROFITS " OF INSURANCE OFFICES.

THE general use, by insurance offices, of the word "profits" is an abuse of the term, they being wholly contingent and remote. It cannot for a moment be questioned, that, instead of "profit," the insurance offices must sustain a loss by every in-urer who dies before the amount paid by him in premiums, with the accumulated interest, shall be equivalent to the amount of his policy,say, from fifteen to thirty-five annual premiums, according to the age of the insured-yet, in most of these offices, the representatives share in the profits, should the insured die immediately after seven payments. The equitable rule would be, to assign the bonus to such only as had survived the expectation of life, according to the generally received law of mortality; or who had paid in premiums, with interest upon them, a sum equal to that for which the life was insured.\*

## CHEAP INSURANCES.

It is a fallacy to suppose that a reduction of a few shillings per cent. in the premium, can be of any advantage to the insured, more especially when there is a \* Quarterly Review. participation in the profits; while it operates as a serious drawback on the profits of the office, and consequently of the insured also. The higher the premium, and the stricter the caution in taking none but good lives, the larger will be the profits to be divided.\*

Some insurance offices hold out to their subscribers a certainty of numerical profit; but, these attempts will cease, when it shall come to be clearly understood that in every office, some must pay more than they receive, in order that others may receive more than they pay.

# OBJECTIONS TO LIFE ASSURANCE.

It is scarcely worth while to enter into an argument with persons who object to all Life Assurance as a species of gambling—nor, with those who, looking to the incorrect phrase, lose sight of what is really meant, and prose about impious interference with the fiat of Providence. There is, however, a more business-like class who object to the plan. These contend that, if the annual sums paid by the assured, as premiums, were put out at compound interest, the produce would exceed what the insured, on his representations, will receive from the office. This is looking at the subject in a very narrow and mistaken point of view: it supposes life certain to a given extent.

# BUILDING, &c.

# OLD ENGLISH MANSIONS.

It is an Error to suppose, that the English gentry, (in the Middle Ages,) were lodged in stately or even in well-sized houses. Generally speaking, their dwellings were almost as inferior to those of their descendants in capacity as they were in convenience. The usual arrangement consisted of an entrance-passage running through the house, with a hall on one side, a parlour beyond, and one or two chambers above; and on the opposite side, a kitchen, pantry, and other offices. Such was the ordinary manor-house of the fitteenth and sixteenth centuries, as appears not only from the documents and engravings, but, as to the latter period, from the buildings themselves, some-

\* Quarterly Review.

t De Morgan.

times, though not very frequently, occupied by families of consideration, more often converted into farm-houses, or distinct tenements. Haddon-Hall and Penshurst still display this ancient arrangement. Larger structures were erected by men of great estates during the reigns of Henry VI. and Edward IV.; but very few can be traced higher; and such has been the effect of time, still more through the advance or decline of families, and the progress of architectural improvement, than the natural decay of these buildings, that it is conceived difficult to name a house in England, still inhabited by a gentleman, and not belonging to the order of castles, the principal apartments of which are older than the reign of Henry VII. instances, at least, must be extremely few. Single rooms, windows, doorways, &c. of an earlier date may perhaps not unfrequently be found; but such instances are always to be verified by their intrinsic evidence, not by the tradition of the place. The most remarkable fragment of early building which I have anywhere found mentioned, is at a house in Berkshire, called Appleton, where there exists a sort of prodigy, an entrance-passage, with circular arches in the Saxon style, which must, probably, he as old as the reign of Henry II. No other private house in England, as I conceive, can boast of such a monument of antiquity."

# FRENCH MANSIONS.

The name of château, (castle,) is retained to this day in France, and erroneously applied to villas, built without any means of defence against an enemy. But, even so late as the sixteenth century, defence was an object in constructing a French mansion-house; a circumstance which will explain its general plainness; for where defence is to be regarded, splendour and convenience must give way. The name of château has, therefore, not been retained in all cases without meaning.

## CHESTNUT AND OAK ROOFS.

A MISTAKE has been made, both in England and on the Continent, in supposing that the woodwork of Westminster Hall, and that of the roofs of many of the oldest of the continental churches, are of the sweet Chestnut, and not of Oak. The fact is, that there are two, if not three, distinct kinds of British oak. The two which are clearly

<sup>\*</sup> Hallam, Hist. Mid. Ages, vol. iii., pp. 422, 423.

distinct, are the quereus mour pedanculata, and quereus robus sessifiera, and the differences between these are found alike in every soil and situation. The third, or deer mast oak, is not so strongly marked; and in many situations it appears to approach so nearly to the quereus robur sessifloris. as to be searcely distinguishable from it. The wood of the que cons robus sessificen, though not suitable for ship-building, as it decays in salt water, is yet very strong and durable when kept dry. The woul of the querous robur pedanculitie, when planed, is found to contain a large proportion of the silver grain or medullary rays, which the workmen call the flower in the wood. The wood of the quercus sessiflore, on the contrary, is so deficient in this, as not to be distinguishable at first sight from the chestnut; and hence the mistake alluded to The wood of the chestnut, however, though tough and tolerably durable when young, is not at all so when it has attained the size of a timber-tree. indeed, very rare to meet with any chestnut trees, the trunks of which are above a foot in diameter, that have not their would rendered quite worthless by a disease called dialling\*.

# DUHABILITY OF BRICKS.

An impression exists in reference to the want of Durability in Bricks, as a building material, of the correctness of which a little reflection will convince us there is some doubt provided they be properly made. So far from being the most perishable, they are the most durable, substance; and the bricks of Ninevels and Habylon, in the museums. show that they were selected by the ancients as the most lasting material. Plutarch thinks them superior in durability to stone, if properly prepared; and it is admitted that the baths of Caracalla, those of Titus, and the Therme of Dioclesian, have withstood the effects of time and fire better than the stone of the Coliseum, or the marble of the Forum of Trajan: yet the bricks of Ninevel and Babylon (and we believe those of the Romans also,) were only sundried—not baked or burned, as the modern practice is.

# GLAZED WINDOWS.

The invention of Glass Windows is referred to by Mr. Hallam, as an essential improvement in the architecture of the Middle Ages, which had been "missed by the sagacity

100

<sup>\*</sup> Landon's Arboretum et Fratleetum Britannieum.

<sup>†</sup> Hist. Mid. Ages, vol. III. p. 424.

of Greece and Rome." Mr. Hallam then passes to the introduction of glazed windows from France into some new churches in England, in the seventh century; and concludes that glass was not employed in our houses before the fourteenth century. "Nor indeed did it come into general use during the period of the Middle Ages. Glazed windows were considered as moveable furniture, and, probably, bore a high price. When the earls of Northumberland, as late as the reign of Elizabeth, left Alnwick Castle, the windows were taken out of their frames, and carefully

laid by "."

These statements have long been received as facts in proof of the comparatively modern use of glass in windows; whereas, the discoveries of our times have proved them to be erroneous. "That the ancients were acquainted with the use of glass windows, is sufficiently proved by the quantity of flat glass discovered during the excavations: and also by its having been found ingeniously fitted to those rare and minute openings which were dignified with the name and office of windows in Pompeiit." That the Romans had also glazed windows in their buildings, in Britain, may be reasonably inferred from the discovery of glass in some of their stations: as at Camalodunum (Colchester), Aquæ Solis (Bath), &c. Indeed, Pennant is of opinion that glass making dates prior to the Roman invasion; and glass is stated by St. Jerome to have been used to form windows in his time (A.D 4.22), at which period the Romans quitted England. Hence, we may conclude the art to have been lost in this country; and the periods usually referred to as the dates of its invention, to be those of its revival.

## DECORATION OF THE INTERIOR OF HOUSES.

In this branch of ornamental art, the results are often unsatisfactory, from want of a proper acquaintance with the effects of particular colours. Thus, rose-colour, though common in paper for rooms, gives a green tint to female complexions; whereas, a light green mases the complexion more rosy than it really is. All reds, orange tints, and violets, are extremely disadvantageous to the complexion:

<sup>\*</sup> Northumberland Household Book, preface, p. 16. Bishop Percy says, on the authority of Harrisan, that glass was not commonly used in the reign of Henry VIII.

<sup>†</sup> Pompeii, (Lib. Ent. Knowledge,) vol. i. p. 119.

dark colours are difficult to light up. Among the light colours, the best are yellow, or light green, or light blue; all these being favourable, not only to the woods used for furniture, but also to the complexions of females.

# STYLE OF LOUIS QUATORES.

A style of ornament is now fostered to a great extent, and is erroneously termed that of Louis XIV., but which, in fact, is the debased manner of the reign of his successor, in which grotesque varieties are substituted for classic design. It is, in truth, what the French call the style of Louis XV. The best style of Louis XIV, is the Roman and Italian styles made more sumptuous; but the moment that the grotesque scroll, so common in the reign of Louis XV., was introduced, it interrupted the chasteness of the Roman style?

# ANCIENT GLASS-PAINTING.

GLASS-PAINTING has fallen almost to the level of chinapainting; but it might be greatly superior now to what It was in ancient times. There is an ignorant opinion among people that the ancient art of glass-painting is completely lost: it is totally void of foundation, for we can carry it to a much higher pitch than the ancients, except in one particular colour, and we come very near to that, We can blend the colours, and produce the effects of light and shadow, which they could not do, by harmonizing and mixing the colours in such a manner, and fixing by proper enamelling and burning them, that they shall afterwards become just as permanent as those of the ancients, with the additional advantage of throwing in superior art 1. Under patronage, and with the advance of chemistry, we could achieve the above triumphs; but the past will blind us to the advantages which we possess in our own times. Messrs, Hoadley and Oldfield have executed a window for Upwell Church, near Wisbeach, which shows that Fogland can boast of artists in this way, equal in talent to any in the world. At Hud-

<sup>\*</sup> M. Chevrent's Experiments on Colours; ut ante, p. 155.

<sup>†</sup> From the Evidence of Mr. J. H. Papworth, before the Parliamentary Committee on Arts and Manufactures.

i Evidence of Mr. John Martin, the historical painter, before Parlia-ment.

dersfield, Yorkshire, is an east window, by Messrs. Ward and Nixon, which proves the fallacy of the opinion of the art being lost. In this performance, there are some splendid ruby tints, which would vie with those of old.

# ANCIENT AQUEDUCTS.

Many have believed that the ancients were ignorant of the law that fluid in pipes will rise to the level of its source, because in all the ruins of their Aqueducts, the channel is a regular slope. Some of these aqueducts, as works of magnitude, are not inferior to the great wall of China, or the Egyptian pyramids; yet, at the present day, a single pipe of cast iron is made to answer the same purpose, and even more perfectly. It is now ascertained, however, that it was not ignorance of the principle, but want of fit material for making the pipes, which cost our forefathers such enormous labour.

# MISCONSTRUCTION OF THEATRES.

Our Theatres are susceptible of much improvement: being so planned at present, that many of the audience can neither see nor hear properly. This has been erroneously attributed to the large size of some of our houses; for, in the largest of them, all might both see and hear distinctly, were it not that accommodation in the way of mere sitting, is made for a far greater number than can possibly be accommodated in regard to the purpose for which it is to be presumed they come thither-namely, to enjoy the performance. Many are placed, not at too great a distance, but much too near-thrust quite close upon the proscenium, and up to the actors themselves; some directly on one side, so that they can see the stage only obliquely; while others are elevated so much above it, both in front and on the sides, as to look quite down upon it, and obtain almost a bird's eye view of it. These inconveniences are increased, when, as is the case at Covent Garden, and in many foreign theatres, the house expands from, or in other words, contracts towards the stage; so that those in the side boxes cannot obtain even a side view without turning very considerably to the right or left. Besides which, every variety of such form, the

\* Dr. Arnott's Elements of Physics.

oval or elliptic, is architecturally disagreeable in itself, being attended with a degree of irregularity offensively perceptible to the eye. The semicircle is, unquestionably, the best figure, because it brings all the spectators, even those placed at the extremities of its chord, facing towards, though not exactly in front of, the stage; for it, in fact, cuts off what can properly be termed side-boxes, or such as are at right angles to the diameter or chord\*.

# ORNAMINTAL GARDENS.

ONE great Error into which we have fallen in England is, that nearly all our Gardens, such as they are, are alike, The small walled in gardens of the villas in the neighbourhood of London; the distribution of shrubs and flowerbeds of the London squares; the college gardens of Oxford and Cambridge; the pleasure gardens of our country residences, both great and small, from those of Buckinghamplace and St. James's Park to the humblest parsonage; are on precisely the same model. They may be said, one and all of them, to be formed on a plan, of which the gardens of the Petit Trianon of Versailles is an admirable caricature: indeed, we know of no better method of properly appreciating and understanding our style, as well as of learning how a too strict adherence to its principles rapidly exposes its errors, than a visit to some of the imitations of it on the Continent, of which the gardens of Malmaison and the Trianon will afford happy examplest.

# IV .- DOMESTIC MANNERS.

## THE ANTIQUE, -ANTIQUITIES.

The term antique is often erroneously applied to old or ancient works of art; whereas, it properly implies the beauty and perfection, and not the age, of such labours. Thus, the "buildings of the Egyptians, although of much higher antiquity than even those of the Greeks, are called

\* W. H. Loeds.

1 Loudon:

ancient, not antique\*." The word antiquity is rarely applied with precision. Mr. Woods remarks: "How terms change their signification in different places! Four hundred years give a monument a full claim to antiquity in England; but in Italy they leave it quite modern." The name of antiquary is supposed to have been first used in England: "if it be true that Henry VIII. conferred it in an especial manner on Lelandt." The adjective antiquarian is often used erroneously for antiquary.

### THE STUDY OF ANTIQUITIES

Is often denounced as puerile and unprofitable, and not without some show of reason. The main Error of our English antiquaries has arisen from their narrowing their views to particular points of research, and thus confounding the interest arising from singularity with the interest of history.

Mr. Hallam acutely observes, with respect to the minute details of the antiquary, that, although "it is hard to say what may not supply matter for a reflecting mind, there is always some danger of losing sight of grand objects in historical disquisition, by too laborous a re-

search into trifles 1."

### PAST AND PRESENT TIMES.

There are two Errors into which we easily slip when thinking of Past Times. One lies in forgetting, in the excellence of what remains, the large overbalance of worthlessness that has been swept away. The second habitual Error is, that in this comparison of ages we divide time merely into Past and Present, and place these into the balance to be weighed against each other; not considering that the present is in our estimation not more than a period of thirty years, or half a century at most; and that the past is a mighty accumulation of many such periods, perhaps the whole of recorded time, or, at least, the whole of that portion of it in which our own country has been distinguished §.

\* Britton. † Archæologia, vol. i. ‡ Hist. Mid. Ages, vol. iii. p. 303. § Coleridge.

### THE PEUDAL SYSTEM.

In the present days of boasted liberty, it is more than probable that the benefits of the Feudal System have been forgotten amidst its abuses, "The system of servitude which prevailed in the earlier periods of our history was not of that unmitigated character that may be supposed, No man, in those days, could prey upon society unless he were at war with it as an outlaw a proclaimed and open enemy. Hade as the laws were, the purposes of law had not then been perverted; it had not been made a craft; it served to deter men from committing crimes or to punish them for the commission; never to shield notorious, acknowledged, impudent guilt, from condign punislament. And in the fabric of society, imperfect as it was, the outlines and rudiments of what it ought to be, were distinctly shown in some main parts, where they are now well-nigh atterly efficed. Every person had his place; there was a system of superingendence everywhere, oivil as well as religious. They who were born in villeinage were born to an inheritance of labour, but not of inevitable depravity and wretchedness. If one class were regarded in some respects as cattle, they were at least taken care of; they were trained, fed, sheltered, and protected; and there was an eye upon them when they strayed. But, how large a part of our present population are unowned, unbroken to any useful purpose, subsisting by chance or by prey; living in filth, mischief, and wretchedness; a misance to the community while they live, and dying miserably at last\*,"

### ENGLISH GLUTTONY,

A qualist writer, of the time of Henry II., tells us that "the English were universally addicted to drumbenness, continuing over their cups day and night, keeping open houses, and spending the income of their estates in riotous feasts, where eating and drinking were carried to excess without any elegance," Upon this passage, Lord Kaimes observes: "People who live in a corner imagine everything is peculiar to themselves. What is here said of the English is common to all nations in advancing from the selfishness of savages to a relish tor society, but who have not yet learned to bridle their appetites."

\* Bouthey's Colloquies,

### THE SUMPTUARY LAWS.

Few enactments have been more erroneous in principle, or in operation more detrimental to national prosperity, than the Sumptuary Laws; by which, among ancient nations in the midst of their highest luxury, and in the earlier ages of our own history, the legislature so vainly, and it may be added so unjustly, endeavoured to prevent the various ranks of men from enjoying the fruits of their industry or of their patrimonial possessions. hardly," says Mr. Macculloch, "a single article among those that are now reckoned most indispensable to existence, or a single improvement of any sort, which has not been denounced at its introduction as a useless superfluity, or as being in some way injurious. Few articles of clothing are at present considered more indispensable than shirts: but there are instances on record of individuals being put in the pillory for presuming to wear so expensive and unnecessary a luxury! Chimneys were not commonly used in England till the middle of the sixteenth century; and, in the introductory discourse to Holinshed's Chronicles, published in 1577, there is a bitter complaint of the multitude of chimneys lately erected, of the exchange of straw pallets for mattresses or flock-beds. and of wooden platters for earthenware and pewter. In another place, he laments that nothing but oak is used for building, instead of willow as heretofore; adding that formerly our houses indeed were of willow, but our men were of oak; but now that our houses are of oak, our men are not only of willow, but some altogether of straw, which is a sore alteration."

Mr. Hallam remarks that the Sumptuary Laws enacted in France and England, during the fourteenth century, by the governments, to restrain the extravagance of their subjects. may well justify the severe indignation which Adam Smith has poured upon all such interference with private expenditure. "The kings of France and England were, undoubtedly, more egregious spendthrifts than any others in their dominions; and contributed far more by their love of pageantry to excite a taste for dissipation in their people, than by their ordinances to repress it\*."

<sup>\*</sup> Hist. Mid. Ages, vol. iii. p. 413.

## " OVER-HEFINEMENT."

This is a commonly misapplied term, if not altogether an erroneous one. "Refinement on the pleasures and conveniences of life has no natural tendency," says David Hume, "to beget venality and corruption. The value which all men put upon any particular pleasure depends on comparison and experience; nor is a porter less greedy of money, which he spends on bacon and brandy, than a courtier who purchases champagne and ortolans. Riches are valuable at all times, and to all men, because they always purchase pleasures such as men are accustomed to and desire; nor can anything restrain and regulate the love of money but a sense of honour and virtue, which, if it he not nearly equal at all times, will generally abound most in ages of knowledge and refinement."

### BENEFITS OF MONASTERIES.

Upon the suppression of the Monasteries, the poor, of course, missed the doles which they had been accustomed to receive at their gates; and wheat rose to three times its former price, whereas it had varied very little for three centuries previously. The people attributed this solely to the dissolution of the Monasteries, as indicated in an old Somersetshire song of the day:—

"Ill tell thee wint, good vellowe, Refere the vrints went hince, A lashed of the best whente, Was rold for vaurteen pence; And verly eggs a penny That were both good and news; And this I say, myself have seen, And yet I am no Jewe."

The people were in Error here; although there was, undow tedly, much almsgiving at the monasteries. Meeksness, self-denial, and charity. "rather than justice and veracity, were inculcated by the religious ethics of the Middle Ages; and in the relief of indigence, it may, upon the whole, be as creed, that the monks did not fall short of their profession." Upon which the author notes: "but it is a strange Error to conceive that English monasteries, before the Dissolution, fed the indigent part of the nation,

<sup>\*</sup> Hallam, Hist. Mid. Ages, vol. III. p. 350.

and gave that general relief which the poor laws are intended to afford."—The greater cause of the above rise in the price of wheat was the pouring of the precious metals into Europe, or, in other words, the increase of money, through the discovery of America; when the money-value of provisions became greater, although the real value remained the same.

### LIVING IN ANCIENT TIMES.

WE have reached, in this age, so high a pitch of luxury, that we can hardly believe, or comprehend, the frugality of Ancient Times; and have, in general, formed mistaken notions as to the habits of expenditure which then prevailed. Accustomed to judge of feudal and chivalrous ages by works of fiction, or by historians who embellished their writings with accounts of occasional festivals and tournaments, and were sometimes inattentive enough to transfer the manners of the seventeenth to the fourteenth century, we are not at all aware of the usual simplicity with which the gentry lived under Edward I., or even Henry VI. They drank little wine, they had no foreign luxuries: they rarely or never kept male servants, except for husbandry; their horses, as we may guess by the price, were indifferent; they seldom travelled beyond their county. And even then hospitality must have been greatly limited, if the value of manors were really no greater than we find it in many surveys. Twenty-four seems a sufficient multiple when we would raise a sum mentioned by a writer under Edward I. to the same real value expressed in our present money; but an income of 10%, or 20% was reckoned a competent estate for a gentleman; at least, the lord of a single manor would seldom have enjoyed more. A knight who possessed 150% per annum, passed for extremely rich\*. Yet this was not equal in command over commodities to 4000l. at present. But this income was comparatively free from taxation, and its expenditure lightened by the services of his villeins. Such a person, however, must have been among the most opulent of the country gentlemen. Sir John Fortescue speaks of five pounds a-year as "a fair living for a yeomant." So when Sir William Drury, one of the richest men in Suffolk, be-

<sup>\*</sup> Macpherson, Annals, p. 424. from Matt. Paris.

<sup>†</sup> Difference of Limited and Absolute Monarchy, p. 133.

queaths, in 1493, fifty marks to each of his daughters, we must not imagine that this was of greater value than four or five hundred pounds of this day; but remark the family pride, and want of ready money, which induced country gentlemen to leave their younger children in poverty". Or, if we read that the expense of a scholar at the university, in 1514, was but five pounds annually, we should err in supposing that he had the liberal accommodation which the present age deems indispensable; but consider how much could be afforded for about sixty pounds, which would be not far from the proportion. And what would a modern lawyer say to the following entry in the churchwardens' accounts of St. Margaret, Westminster, for 1476: "Also paid to Roger Tylpott, learned in the law, for his counsel-giving, 3s. 8d., with fourpence for his dinnert." Though fifteen times the fee might not seem altogether inadequate at present, five shillings would hardly furnish the table of a barrister, even if the fastidiousness of our manners would admit of his accepting such a dole!

#### ELIZABETHAN LIVING.

It is the vulgar idea that Queen Elizabeth's maids of honour breakfasted on beef-steaks and ale, and that wine was such a rarity as to be sold only by anothecaries as a cordial. The science of good living was as well understood in those days as it is now, though the fushion might be somewhat different: the nobility had French cooks; and among the dishes enumerated, we find "not only beef, mutton, veal, lamb, kid, pork, rabbit, capon, pig;" but also red, or fallow deer, and a great variety of fish and wild fowl, with pastry and creams, Italian confections, and preserved fruits, and sweetmeats from Portugal; nay, we are even told of cherries served up at twenty shillings

<sup>\*</sup> Hist, of Hawsted, p. 141.

<sup>†</sup> Nichola's Hlustrations, p. 2. One fact of this class did, I own, stagger me. The great Earl of Warwick writes to a private gentleman, Bir Thomas Tuddenham, begging the loan of twenty pounds, to make up a sum he had to pay. Paston Letters, vol. i. p. 84. What way shal we make this commensurate to the present value of money? But an ingenious friend suggested, what I do not question is the case, that this was one of many letters addressed to the adherents of Warwick, in order to raise, by their contributions, a considerable sum. It is curious, in this light, as an illustration of manners.

<sup>‡</sup> Hallam, Hist. Mid. Ages, vol. iii. pp. 451-453.

a pound. The variety of wines can hardly be exceeded at present: for a writer of Elizabeth's time mentions fifty-six different kinds of French wine, and thirty-six Spanish and Italian wine, imported into England.

### ELIZABETHAN LITERATURE.

WHEN we speak of the Elizabethan style, or the Elizabethan period, of Literature, we use an expression which is not altogether correct; for the forty-four years of Elizabeth's reign embraced more than one period of style, both in poetry and in prose. The literature of the earlier years of this reign exhibits much of the simplicity of the olden literature, but is rather mediocre: in the middle of the reign the taste for learning and foreign languages, mixed with the peculiar character of the court of the virgin queen, produced a style that was full of pedantry and farfetched conceits; whilst in the latter years of this century we have the first examples of that pure nervous style which characterised so many of the writers of the following age. In illustration of what we have just said, we need only observe, that the celebrated play of "Gammer Gurton's Needle" was written in the earlier years, and that some of the best pieces of Shakspeare appeared in the latter years, of the reign of Elizabeth+.

### BEEF-EATERS.

FROM Henry VIII. it is thought that the yeomen of the guard derived the sobriquet by which they are known to every child in the realm—that of Beef-eaters, through the King's trick upon the surfeit-sick Abbot of Reading. The royal frolic has been often related: it is enough here to remark, that it was performed in the disguise of a yeoman, and ended by restoring to the Abbot his appetite for beef. For certain inquirers, however, this explanation was too literal, or, perhaps, displayed too little learning: so, etymologists condemned the explanation as a vulgar Error, and traced Beef-eaters to Buffetiers, from the yeomen of the guard who waited at the royal table at great solemnities, and were ranged near the buffets, or sideboards. The former origin, nevertheless, seems the more probable, if any, than the obvious looks and living of the men themselves, is at all wanted.

<sup>\*</sup> Mrs. Jameson. † Literary Gazette. \$ See Antiq. Report. edit. 1808, vol. ii. p. 398

# "THE ROAST BEEF OF OLD ENGLAND."

In the Notes to Hume's History of England, vol. i., 85, are some extracts from the Household Book of the establishment of the fifth earl of Northumberland, begun in 1512; and no baron's family lived on a more splendid scale. Yet they lived mostly upon salted meat. Thus: "Six hundred and forty-seven sheep are allowed, at twenty-pence apiece: and these seem to be all eat salted, except between Lammas and Michaelmas, p. 5. Only twenty five hogs are allowed, at two shillings apiece; twenty-eight veals at twentypence; forty lambs at tenpence or a shilling, p. 7. These seem to be reserved for my lord's table, or that of the upper servants, called the knights' table. The other servants, as they are salted meat almost through the whole year, and with few or no vegetables, had a very bad and unhealthy diet: so that there cannot be anything more erroneous than the magnificent ideas formed of the Roast Beef of Old England." Probably, this national dish is not older than the time of Charles II, when a roast chine of beef was a favourite supper viand; although this inference is from better authority than the anecdote of Charles knighting a loin of beef (Sir-loin), upon an oak table lately shown at Friday Hill House, Chingford, Essex.

# " SALLET OIL."

Persons generally imagine this term to be a vulgar corruption of "Salad Oil;" whereas it applies to a different kind of oil to that used in salads. The truth is, the sallet was the head-piece in the times that defensive armour was so much in use, and the sallet oil was that sort of oil which was used for cleaning and brightening it. Thus, we have "a sallet and ij sculles" in the inventory of Mr. Lawrence, Rector of Stawely, co. Derb. The word occurs again in the inventory of Pet. Tretchvile, Esq., anno 1581: and also in the description of the sarcastical coat of Cardinal Wolsey:—

" Arlse up Jacke, and put on thy salatt."

We see, therefore, that the oil retained the name long after the sallet was out of use.

### FLAGS ON CASTLES.

THAT noblemen and gentlemen of ancient families should not more frequently display a banner of their arms on their castles, instead of the national flag, which, properly speaking, they have not the slightest right to use, arises perhaps as much from ignorance and indifference as from modesty. They would laugh at the idea of painting a shield charged with the union badge on their carriages; and yet they place it over their residences, though it would be as appropriate in one place as in the other How much more in character with all the associations which our inhabited castles and ancient family mansions, are calculated to excite, would be a banner of the quartered coats of the family, to denote the presence of the owner, than the incongruous combination which is usually adopted for the national flag\*. This observation applies, mutatis mutandis, to Arundel and Alnwick Castles; Chatsworth, Woburn, and other noble seats+.

# "UP WITH THE SUN."

To rise with the Sun, implies, in common parlance, very early habits, of difficult attainment. But, "we rise with the sun at Christmas: it were but continuing to do so till the middle of April, and without any perceptible change, we should find ourselves then rising at five o'clock; at which hour we might continue till September, and then accommodate ourselves again to the change of season, regulating always the time of retiring in the same proportion. They who require eight hours' sleep would, upon such a system, go to bed at nine during four months."

#### THE CURFEW.

The erroneous notions which long prevailed upon the original object of the Curfew, show how liable men are to overcharge the memory of an oppressor, and to mistake good for evil intentions, simply because they emanate from a man usually characterised for cruelty. The custom of covering up fires about sunset in summer, and about eight at night in the winter, at the ringing of a bell, called the

<sup>\*</sup> These standards are sometimes very costly. The royal standard at Windsor Castle is fourteen yards in length, and eight in breadth, and cost two hundred pounds.

couver-fru\* or curfew-bell, is supposed to have been introduced by William I., and to have been imposed upon the English as a badge of servitude; and it has often been quoted to show with what severity the Conqueror cought to press his cruel government, even to the very fire-sides of our forefathers. Thus, we read of the Battle of Hastings becoming a tale of sorrow, which old men narrated by the light of the embers until warned to silence by the tolling of the curfew. Thomson, in his Seasons, countenances this opinion of the tyranny of the custom:

"The shivering wretches at the curfew sound, Dejected sunk into their sordid beds, And through the mournful gloom of ancient times, Mused sad, or dreamt of better."

Henry, in his History of Britain, qto. edit., vol. iii. p. \$67, however, says this opinion does not seem well-founded: for there is sufficient evidence that the same custom prevailed in France, Spain, Italy, Scotland, and probably in all the other countries of Europe, at this period: it was intended as a precaution against fires, which were then very frequent and very destructive when so many houses were built of wood; and of such fires the Saxon Chronicle makes frequent mention. Again, the Curfew is stated to have been used in England at a much earlier date than the Conqueror's reign, and by one of England's best monarchs, Alfred, the restorer of the University of Oxford; who ordained that all the inhabitants of that city should, at the ringing of the Curfew bell at Carfax, cover up their fires and go to bed; which custom, it is stated in Peshall's History of Oxford, "is observed to this day, and the bell as constantly rings at eight as Great Tom tolls at nine." It is, therefore, reasonable to conclude that the Conqueror revived or continued the custom, which he had previously established in Normandy, and regarded in both countries as a beneficial law of police.

We likewise find the Curfew mentioned to a very late period as a common and approved regulation, which would not have been the case had it been originally imposed as "a badge of servitude," or a law to prevent the people meeting to concert by their fire-sides the means of resist-

<sup>\*</sup> The name is also traced to the Norman carrefou. Pasquier states it to be derived from carfou or parefou, as being intended to advertise the people to secure themselves from the robbers and revellers of the night.

ing William's oppressive rule. We even find the ringing of the Curfew bell provided for by bequests of tracts of land or other property; although this ringing was but the relic of the custom; for the people are not supposed to have been compelled to put out their fires and lights beyond the reign of William II. Henry I. restored the use of lamps and candles at court in the night, after the ringing of the Curfew-bell, which had been prohibited by

his predecessors\*.

Polydore Vergil favours the vulgar notion of the custom being oppressive, by observing: "in order that he (William) might convert the native ferocity of the people into indolence and sloth, he deprived them of their arms, and ordained that each head of a family should retire to rest about eight o'clock in the evening, having raked the ashes over his fire; and that for this purpose a sign should be made through every village, which is even now preserved, and called in the Norman Corerfeu." Voltaire, in his Universal Dictionary, on the other hand, ridicules the idea of the Curfew being a badge of degradation, and regards it as only "an ancient police."

In further proof that the custom cannot justly be considered as evidence of an unworthy state of subjection, is the fact that the obligation to extinguish fires and lights at a certain hour was imposed upon his subjects by David I., King of Scotland, in his Leges Burgorum; and in this case, no one ever imagined that it conveyed any

sign of infamy or servitude.

### ANCIENT VALUE OF MONEY.

In reading the many curious records which are preserved to us of the comparative expense of living in past ages, its amount, at first sight, appears almost incredibly low+; the reader, in few cases, rightly estimating the Comparative Value of Money in the past and present times.

<sup>\*</sup> Will, Malmsb. fol. 88.

<sup>†</sup> In 1299, the price of a fat lamb in London, from Christmas to Shrovetide, was 164. (Stillingfleet's Chronicum Rusticum, p. 66.) Three years afterwards, the price of a fat wether was 1s., and that of a ewe 8d. (Dugdale's Hist. St. Paul's Cathedral); and in 1309, there is a notice of an extravagant price given on occasion of an installation feast: two hundred sheep cost 30d., or 3s. per head. (W. Thorn, inter Decem Scriptores.) The reader will not much err, if he multiplies these sums by 15, as expressive of their proportionate value at the present day.

Thus, the silver shilling in the twelfth century, and for some centuries afterwards, weighed three times as much as it now does; and on account of the scarcity of money, the expense of living varied from one-fifth to one-eighth of what it does at the existing period. The real proportion is continually varying; but, in order to avoid exaggeration, and to arrive at an even sum, 6\mathbb{z} has been assumed as the general average, and this multiplied by three gives twenty; or, in other words, the value of a certain sum then was equal to twenty times as much as at the present day. From the increasing quantity of the circulating medium, soon after this period the difference in the expense of living decreased to the average of five; and therefore, and for some centuries to come, the multiplier will be fifteen instead of twenty\*.

#### PORTRAITS ON COINS.

The fidelity of the likenesses of the English monarchs on their Coins, has been strangely overrated; and has led to many erroneous impressions of the personal characteris-

Youatt, on Sheep, p 200.
The following Comparative lable of Fighth Money is from Sir Prederick M. Eden's State of the Poor, &c. The unit, or present value refers, of course, to that of the shifting before the last coinage, which, reduced it —

	Value of Pound sterling present Money.	Proportion.
	E. s. d.	
Conquest	2 18 14	2.566
18 E. L	2 17 5	2.671
18 E. HI	2 12 64	2.622
20 E. III	2 11 8	2,663
27 E. 111	2 6 6	2.326
13 H. IV	1 18 9	1.937
4 B. IV	1 11 6	1.55
18 H. VIII	1 7 64	1.378
34 IL VIII	1 3 34	1,163
86 H. VIII	0 13 114	0.698
a7 H. VIII	0 9 34	0.466
5 E. VI	- 0 4 79	0.252
6 1. VL	1 0 64	1.028
1 Mary	1 0 69	1.024
2 liliz,	1 0 8	1.033
43 Pliz	1 0 0	1.000

tics of our sovereigns; although there is an epoch at which these representations assume some claim to authenticity. An ingenious writer has compared the monarchs anterior to Henry VIII. to "the visioned line of Banquo, imaginary creations, with so strong a family resemblance even in their dresses, that we may exclaim with Macbeth, the

> · Other gold bound brow is like the first, A third is like the former. Why do you show me this?'

The time is fast arriving, however, when it will be generally acknowledged, that to stamp such false impressions upon the pliant but retentive mind of youth, is worse than leaving it a blank altogether. To a child a picture is a picture, and it is as easy, and much wiser, to place the authentic instead of the fictitious resemblance before it, as soon as it is capable of being interested by either\*."

Numismatists are not, however, uniform in their opinions as to the extent of the reliance to be placed upon these medallic portraits. Mr. J. Y. Akerman observes: "it is quite evident that the effigies of the English monarchs on their coins are not likenesses until the time of Henry VIII .. whatever the ingenious may say to the contrary. have supposed that the rude figures on the Saxon coins are likenesses, but the idea is ridiculous. Folkes, in his Table of English Silver Coins, remarks that the kings of England are represented bearded on their great seals, but always sprootn-faced on their coinst."

Mr. Till observes upon this interesting point of identity: "having paid some attention to the portraits of our sovereigns, I am decidedly of opinion that we occasionally see a real, though rough, likeness in profile of our earliest kings, even of William I. As to Henry I. and Stephen, any one who is a judge of portraits may find, on comparison, a certain profile preserved throughout. With fullfaced coins, the case is different; though I have seen a halfpenny and a gold noble of Richard II., both struck when he was a boy, and conveying, to a certain extent, the image of the youthful sovereign. But, it is not until the reign of Henry VIII. that we obtain a real likeness on a full-faced coin 1.

<sup>\*</sup> Planché's History of British Costume, p. 233.

<sup>†</sup> Numismatic Manual, page 139, note. ‡ Essay on the Roman Denarius, &c. p. 67, note.

Want of judgment in the engravers at the Royal Mint has, doubtless, multiplied these Errors in modern as in an-This is especially instanced in the coinage of cient times. George 111. The head of this monarch upon his crownpiece by Pistrucci is, as to likeness, completely erroneous. Indeed, this artist, Mr. Till infers, "never could have seen George 111. It excites our risibility to notice the first half-crown of this monarch, exhibiting our respected old king with a neck like unto a gladiator. This, it appears, did not please: another was executed; the fault, if any, was mended, and, still no likeness. If the head on the crown-piece was a likeness, why not then have engraved the half-crowns from the same model? They present very different portraits altogether; surely, this must be very absurd—what can be more ridiculous, than to see three coins representing the same person, issued at one and the same time, all bearing different countenances? have taken the copper twopenny piece, engraved at Soho, (near Birmingham,) by Kutchler, as a copy !- this is like the Sovereign, probably one of the best likenesses extant; or, if at a loss, many fine medals by the same artist, or the Wyons, convey a faithful resemblance of George III."

still, the scepticism as to likenesses on coins may be carried too far; and, to guard against any misconception on this point, a competent writer observes: "the tyro in numismatics must not be led into the notion that little dependence is to be placed on the fidelity of medallic portraits in general. No conclusion would be more false. The instances commented upon are peculiar exceptions, thoroughly understood by experienced numismatists; and so far from misleading, (them,) merely amuse by the skill and ingenuity they display. The fact that these ingenuities are so easily detected, proves the truth of the standard likenesses with which the regular coins abundantly furnish us. Certainly, excessive flattery prevailed on ancient coins, though scarcely more so than it does on most modern medals; but this was worked into the legends, and imagin ary devices, while the portraits were studiously copied from the reality\*."

\* Numismatic Journal, April 1837. In connexion with the above inquiry, we may remark, that the authenticity of Houbraken's celebrated portraits of English sovereigns, whence the filustrations to our popular histories have mostly been copied, rests upon very slender inference. "Houbraken, as the late Lord Orford justly observes, was

## QUEEN ANNE'S FARTHINGS.

FEW Errors have become more popular than that of the extreme rarity of the Farthing coinage of Queen Anne. Many a tyro in numismatics, on inspecting the cabinet of a coin collector, has exclaimed: "But you have not a Farthing of Queen Anne? You know there were only three of them struck\*." And so current has been this belief, that, probably, no practical Error has occasioned more mischief and mortification to those who have been misled by it, than that which we are about to elucidate. This task has often been attempted, but has never been so satisfactorily performed as by our friend, Mr. William Till, the respectable medallist, in London; who, at our request, in the year 1835, drew up as complete an explanation of the Error as his extensive acquaintance with numismatics, and his long experience in coin-dealing, enabled him to accomplish.

Mr. Till observes: "it will scarcely be believed, that persons from almost all parts of England have travelled to the metropolis, on the qui vive to make, as they supposed, their fortunes, with a Farthing, or a presumed Farthing of Anne, in their possession; and which, on being taken to the British Museum, has been found to be almost or entirely worthless." From York, and even from Ireland, persons have come: a poor man from the former, and a man and his wife from the latter, place. Indeed, it is to be regretted, that these are not the only instances known by many. Most of our countrymen labour under the delusion, that Queen Anne struck only three Farthings: I beg leave most unequivocally, and with deference, to assure

ignorant of our history, uninquisitive into the authenticity of the drawings which were transmitted to him, and engraved whatever was sent; adducing two instances, namely, Carr, Earlof Somerset, and Secretary Thurloe, as not only spurious, but not liaving the least rescmiliance to the persons they pretend to represent. An anonymous, but evidently well-informed writer, (in the Gautteman's Magazine,) further states, that Thurloe's, and about thirty of the others, are copied from heads painted for no one knows who."—Lodge's Hinstrated Biography.

\* If you answer in the affirmative, he is ready for you, armed at all points, with the old story: "Why, there never were but three: the Museum has two of them, and would give a large sum for the third!"

† In the Times, Sept. 26, 1826, a magistrate relates the circumstance of a poor man coming to London from Redfordshire with a real but common Farthing of Queen Anne, in the hope of making his fortune by it.

them, that Farthings of her were struck to the number of some hundreds. To trace, with any degree of certainty, this fable to its original source, would be extremely difficult; but from information obtained from our chief medallist, it appears that some years since, a lady in Yorkshire having, by accident, lost a Farthing of Anne, which, from some circumstance or other, was rendered valuable to her, she offered a reward for the same, thereby stamping a fallacious and ridiculous value on it. Others, on the contrary, believe that only three were struck, and that the die broke on striking the third †.

 Mr. Till states, that there must have been from 300 to 500 of the farthings issued, as they are, by no means, rare; and be has seen no less than 30 of them at one time.

In the Observer newspaper, date 1837, it is stated: "we have heard from good authority, that the keepers of the British Museum are continually pestered with letters and applications upon this subject; and it is not very long since a noble Earl addressed a letter to the trustees, or some of the officers, for information, in consequence of one of his lordship's tenants having discovered what he thought was 'a Queen Anne's Forthing" "It may be in recollection of some of our readers, that the famous Mr. Christie, the anctioneer, sold one of these spurious coins for several bundred pounds." The Rev. Dr. Dibdin (in his Northern Tour, p. 733) relates: "One of them. of 1713, was shown to me by a father, who said he should leave it to his son, as a 5007, legacy"

t The British Press newspaper of the 14th of February, 1814, and the Numismatic Journal, April, 1837, contain the report of a very curious trial which took place at Dublin, relating to one of these places. In the Observer, just quoted, the writer, in an attempted explanation of the Brror, states: "What will the reader think when he is informed that there is not, nor ever was, a single Queen Anne's Farthing in existence. yet such is the truth. The following particulars are derived from a source on which the most confident reliance may be placed, and they will abundantly clear up the whole mystery. Some time before the death of Queen Anne, it was her intention to Issue a colunge of Farthings, and she gave directions to that effect. Those directions mare particularly were, that three dies of different patterns should be suple. and a specimen of each struck off for the queen's inspection, and sho was to select one out of the three. This was accordingly done; but before the queen had signified her approbation of either, she expired; and, of course, there was no issue of a further coinage in her reign The dies became useless; but it is probable that before they were destroyed, many other impressions were taken from them, and given away as curlosities. Hence it is easy to account for the number of Queen Anne's Farthings which have, from time to time, been brought to light; but it is obviously a mistake so to call them, because they never could become the coin of the realm without the sovereign's sanetion; and no such proclamation is on record." Unfortunately for this explanation, the specimen with the date 1714, the year of Anne's

"In the British Museum," continues Mr. Till, "are six distinct varieties of the Farthings of Queen Anne: indeed, there may be said to be seven; but one ort alone really circulated, and this is the variety on which we see the figure of Britannia on the reverse, and below it, in the exergue, the date 1714, (No. 6) I count, in my own

cabinet, from fifteen to twenty of them.

"The other six varieties are what are termed pattern pieces, struck for approval, but from which no copies for circulation have been taken. The portraits on the obverses are much the same; the busts ornamented with drapery, and the head adorned with a string of pearls. The reverses, except in one instance, differ from the common Farthing which circulated; and, on the pattern, in which no difference exists, we find, instead of 'Anna Dei Gratia,' the legend 'Anna Regina,' surrounding the queen's bust.

This pattern is rare."

The value of these Farthings varies from 1l. to 3l.; but the scarcest has brought upwards of 5l at a public auction. It is, however, only important here to specify the value of the common and real Farthing of Anne, which was current generally, and which is stated by Mr. Till to bring from 7s. to 12s., "and if extremely fine in preservation, may be worth a guinea. Some are found with a broad rim, and are considered more scarce than the others. I speak of these coins as being in copper." Dr. Dibdin states the value of this Farthing to be under 5s. Mr. J. Y. Ackerman, a numismatist, recognises "the common current farthing of Anne" as scarce, but scarcer with the broad rim\*.

"Having described the real and pattern Farthings of Queen Anne, (adds Mr Till,) it may be desirable to mention a lot of trumpery tokens of brass, which have caused much trouble to the possessors, as well as annoyance to others, particularly to the officers attached to the

medal-rooms of the British Museum.

death, is by no means rare. Dr. Dibdin states, that "Anne was always averse to a copper coinage, though much wanted Croker exerted his abilities in engraving the dies, hoping their elegance and beauty would merit her attention; but it was to no purpose. The queen could not be brought to hear of a copper coinage; and the nominal Queen Anne's Farthings are these trial pieces."—Northern Tour, page 733

\* For further details, see the Mirror, No 722. Mr. Till has reprinted his communication, with additions and corrections, in his ingenious little Essay on the Roman Denarius and English Silver Penny, 1837.

"These tokens of brass are thinner than the real copport. Farthings of Anne. On the head side, they present you with an execrable bust of the queen, with a long, scraggy neck, unlike that of this sovereign, with the legend 'Anna Dei Gratia.' On the reverse, the royal arms in the shape of a cross, (roses are sometimes seen between the quarterings;) indeed, very similar to the shilling of Anne before the Union: their date, generally, 1711. These worthless counters have caused an immense deal of trouble: the lower classes becoming possessed of them, and starting off (as before stated) for London, to make their fortunes. They would not be worth noticing here, were it not to publish them as pieces of no value whatever \*."

### ERROR HALFPENCE.

Or all the blunders which have emanated from our National Mint, those of the two Error Halfpence of George III, and George III., formerly termed "Tower Halfpence," stand pre-eminent. Indeed, it must ever remain a matter of astonishment, that such a circumstance could have taken place. If the collector of these coins will take the trouble to search, he will find, in the year 1730, one of the halfpence of the first-named sovereign spelled Geogius. This certainly is very extraordinary; but, is it not much more so to find, subsequently, one issuing from the Mint of his successor, George III., likewise mis-spelt? This reads acourts instead of Georgetts, and was issued in 1772. There is reason to believe, that, after the latter coins were circulated, a reward was offered for each piece, if returned to the Mint. This is probable, as they were more rare than those of George II †

### LIGHT GUINEAS.

WE are too apt to consider a much-worn Guinea to be of short weight. Mr. Hatchett has, however, proved that

<sup>\*</sup> A publican once procured one of these counters, which he placed in his window, as the real Farthing of Queen Anne. Credulous persons came far and near to view this "great curiosity," and the landlord turned his deception to good account; for deception it was, as one of the first medallists of the age appointed a meeting with this man, and exhibiting a real, but common Farthing of Anne, attempted to convince him of his Error, but the heax was too profitable to be relinquished.

1 Till's Essay on the Roman Denarius, &c.—p. 9s, note.

the obliteration of the impressions on gold coins is not always attended with a diminution of weight; but that the supposed abrasion of the prominent parts is, in fact, a depression of those parts into the mass, bringing them to a level with the rest.

## PROHIBITED TRADE.

SAY, the great political economist of France, quotes a forcible instance of the effects of Prohibition. During the reign of Napoleon, vessels were despatched from London, freighted with sugar, coffee, tobacco, and cotton twist, for Salonica (Macedonia), whence these articles of merchandise were carried by beasts of burden, by way of Servia and Hungary, to Germany and France: so that an article consumed at Calais was brought from England, only twenty miles distant, by a route, which, in point of expense, must have been equivalent to a voyage twice round the globe.

#### HOLIDAYS AND TRADE.

Public Holidays are much less prejudicial to Trade than is generally imagined. Thus, "if by an agreement amongst themselves, or by a statute, the shops of tradesmen were shut on one other day besides Sunday, in every month, fortnight, or week, as much of their wares would be sold as ever; the business that would have been transacted on the new holiday, would be done on one of the remaining days; some ease would be gained, and no custom lost by the whole company. It is no inconvenience to the public that nutmegs and pepper cannot be procured on a Sunday-nor would it be if the same disability were extended to a Wednesday. It would, however, be very inconvenient if there were only one day in the year on which spices could be transferred. In mechanical operations, it is somewhat different. Whilst the saw and the shuttle are still, the gains of the joiner and weaver stop also; but, if there be an adequate motive for vigorous exertions, every one must have observed, that in mechanical arts, although it may not be possible to put the labour of a month into a week, it is very easy to do the work of ten days in nine"."

\* Edinburgh Review.

### OBSOLETS HOLIDAYS.

The non-observance of Holidays is a matter of greater moment than most persons imagine. "Festivals, when duly observed, attach men to the civil and religious institutions of their country; it is an evil, therefore, when they fall into disuse"."

A holiday that has been spent in an agreeable and rational manner, has an invigorating effect; and the anticipated holiday is still more animating: besides, unceasing toil is injurious, and an excess of labour, like all other excesses, is mischievous, and destroys the power of labouring.

### IMPROVEMENT OF THE WORLD.

CENTAIN persons believe the World to be in a rapid state of sure improvement; and in the ferment which exists everywhere, they behold only a purifying process; not considering that there is an actions as well as a vinous fermentation; and that in the one case the liquor may be spilt, and in the other it must be spilt.

### UNPOPULAR IMPROVEMENTS.

There is not one single source of human happiness against which there have not been uttered the most lugularious predictions. Turnpike roads, navigable canals, inoculation, hops, tobacco, the Reformation, the Revolution. There are always a set of worthy and moderately-gifted men, who bawl out death and ruin upon every valuable change which the varying aspect of human affairs absolutely and imperiously requires. It would be extremely useful to make a collection of the harred and abuse that all those changes have experienced, which are now admitted to be marked improvements in our condition. Such a history might make folly a little more modest, and suspicious of its own decisious.

#### PUBLIC TANTE.

The public are commonly said to "run after anything new;" but the chances of novelties in success are by no means so numerous as is generally imagined; they usually offend those whom they fail to attract; and of all innovations, there are none of which the sovereign public is so intolerant as innovations in taste.

\* Southey. 1 Se

1 Bouthey.

1 Hydney Binith

### A KING WITHOUT HIS CROWN.

In ancient times, our Kings observed the principal feasts with great hospitality and pomp, particularly those of Christmas, Easter, and Whitsuntide, when they always wore their Crowns of state. This observance of wearing the crown was first neglected by Edward I, and afterwards the custom gradually became forgotten; so that we need not wonder at a crowned sovereign being a rare sight in our times. Yet, a crown is inseparable from our earliest notions of a king.

## ABSURD NOTIONS UNIVERSAL.

THE ingenious author of the Plurality of Worlds ridicules the Chinese, because, says he, they see a thousand stars fall at once into the sea. It is very likely that the Emperor Kam-hi ridiculed this notion as much as Fonte-Some Chinese almanac-maker had, it should seem, been good-natured enough to speak of these meteors after the manner of the people, and to take them for stars. Every country has its foolish notions. All the nations of antiquity made the sun lie down in the sea, where we for a long time sent the stars. We have believed that the clouds touched the firmament; that the firmament was a hard substance, and that it supported a reservoir of water. It has not long been known in our towns, that the Virginthread (fil de la Vierge), so often found in the country, is nothing more than the thread spun by a spider. not laugh at any people. Let us reflect that the Chinese had astrolabes and spheres before we could read; and that if they made no great progress in astronomy, it is through that same respect for the ancients which we have had for Aristotle\*

### NATIONAL ERRORS.

A hundred years is a very little time for the deviation of a National Error; and it is so far from being reasonable to look for its decay at so short a date, that it can hardly be expected, within such limits, to have displayed the full bloom of its imbecility+.

Voltaire's Philosophical Dictionary, New Translation, vol. 1.
 † Sydney Smith.

#### LOYALTY OF BRITISH SAILORS AND SOLDIERS.

It is a remarkable fact that the American Navy is principally manned by British seamen. "It may be surmised," observes Captain Marryat, "that British seamen would refuse to be employed against their country. Some might; but there is no character so utterly devoid of principle as the British sailor and soldier. In Dibdin's Songs, we certainly have another version: 'True to his country and his king,' &e; but I am afraid they do not deserve it. Soldiers and sailors are mercenaries: they risk their lives for money; it is their trade to do so; and if they can get higher wages, they never consider the justice of the cause, or whom they fight for "." Southey has truly observed, that in England we have more of the pride of independence than of independence itself.

# " JEWS ORANGES."

The very low rate at which itinerant venders of Oranges of the Jewish persuasion are accustomed to offer their fruit, has doubtless led many persons to question the honesty of the means by which the slip-shod marchands obtain their stock. Such an impression is, however, erroneous and unjust; and is explained by the fact that the Rabbis of the London Synagogues are in the habit of affording both employment and maintenance to the poor of their persua-ion by supplying them with oranges at an almost nominal price.

### SUICIDES IN NOVEMBER.

The popular notion that more Suicides are committed in the month of November than at any other period of the year, is founded on erroneous data. Taking the average number of suicides in each month from the years 1817 to 1826, it was as follows:—

January			213	July .				301
Pebruary .			218	August .				296
March			275	September			•	246
April .			374	October .	·	•		196
May .			378	November				131
June .			336	December .		·		217

Total 3,133

<sup>\*</sup> Diary in America, 1839.

It has been clearly established that in all the European capitals, where anything like correct data can be obtained, the maximum of suicides is in the month of June and July, and the minimum in October and November. It appears from this, that the disposition has most to do with high temperature; for it has been proved that when the thermometer of Fahrenheit ranges from 80° to 90°, suicide becomes more prevalent \*.

# ENGLISH AND FRENCH SUICIDES.

The English have been accused by foreigners of being the beau ideal of a suicidal people. The charge is almost too ridiculous to merit serious refutation. It has been clearly established, that where there is one suicide in London, there are five in Paris. In the year 1816, the number of suicides committed in London amounted to 188, the population of Paris being some 400,000 less than that of London. From the years 1827 to 1830, no less than 6,900 suicides occurred in France; that is to say, an

average of nearly 1,800 per annum!

The English, therefore are not, par excellence, a suicidal people. When the inhabitants of a country are industrious and prudent, the crime of self-destruction will be rare. Out of 120,000 persons who insured their lives in the London Equitable Insurance Company, the number of suicides in twenty years was only fifteen. The Irish are stated to be the least disposed of all nations in the world to commit suicide. Dublin and Naples are the two cities in which fewest suicides occur; yet in both the poorer classes the poor indeed. Dr. Graves observes, that an Irishman often murders his neighbour; but he has too high a sense of propriety to think of killing himself. The fact is, that the prevalence of murder prevents the necessity for suicide†.

# ABSURDITIES IN MEDICINE.

THE industrious nosologist, Sauvages, has calculated that there are about 2,400 disorders to which the human frame is liable, and for which it is our sacred duty to investigate every object in nature that can alleviate them.

<sup>\*</sup> Mr. Forbes Winslow's Anatomy of Suicide.
† Ibid.

At first, almost everything was indiscriminately received, and then as arbitrarily rejected. Experience has, at length, enabled us to select from the vast farrage those which really possess the reparative power, and to establish a system which is pretty universally recognised throughout all parts of the globe that have been illuminated by the torch of science. No longer does the talisman, the amulet, work upon a disordered imagination Charms, witcheraft, and astrology, have lost their influence; and although for a time some daring quackery absorbs the public attention, the good sense of the community, aided by the scrutinising vigilance of the medical world, overwhelms it with the contempt it merits. The sponge that wiped the consecrated table of the Pope is no longer superatitiously venerated as a healer of wounds; nor does a throng of unhealthy individuals surround the carriage of our kings to obtain the royal touch, once thought to be a specific against scrofula. We no longer find, as in our first pharmacoporias, remedies in human sculls powdered, in parings of the nails, in wolf's liver, in common bed bugs, all of which, in their appropriate Latin names, obtained the sanction of our learned bodies. The progrees of the Materia Medica is now less impeded by superatition, by crodulity ignorance, impudence, false theory, avarice, and a blind obedience to the writings of the Still, however, much remains to be done, and ancienta diligent examination is necessary, before we rashly receive into our pharmacopreias, substances whose effects upon the tissues of the human body are not thoroughly understood.

# " THE SCOTOR."

Popular notions in general are apt long to survive any basis of fact which they originally had. There is a disagreeable disease, supposed by the lower orders in England to be particularly prevalent in Scotland. What prevalence it may have had years ago, we cannot tell; but it is a curious fact, that though we have spent all the years of our life in Scotland, we never once saw a person known to be afflicted with that disease! † This reminds one of the following passage in Boswell's Life of Dr. Johnson: "Housed! Pray, sir, can you trace the cause of your antipathy to the Scotch?" Johnson: "I cannot, sir."

<sup>\*</sup> Dr Sigmond. | Chambers's Edinburgh Journal,

### IMAGINATIVE CURES.

The power of Imagination in curing diseases is much stronger than many persons are disposed to credit. To such influence may be attributed much of the success of many nostrums; as of the anodyne necklace, which are beads formed of the roots of hyoscyamus, or henbane, worn by

children to assist their teething.

This mode of applying medicaments appears to be now out of fashion; but it formerly obtained a high reputation. It is said that the fourth book of the Iliad has often cured intermittent fever in this way; the strength of the language and the warmth of action that pervades this portion of Homer's magnificent poem being such, that it was metaphorically said to be sufficient to cure a sick man of an ague. Some individuals, not understanding poetic metaphors, actually converted this saying into a remedy, and wore a portion of vellum containing this book round the neck. Serenus Sammonicus, a very learned physician, has ordered that, for the relief of ague, it should be applied to the head; and cures are said to have been thus eff-cted. Such is the power of imagination. Dr. Sigmond relates, that a poor woman, having applied to a physician for a cure of an affection of the breast, he gave her a prescription, which he directed should be applied to the breast. She returned at the end of a few days, to offer her grateful thanks for the cure which he had effected; and, on making inquiry as to the mode of action, he learned that his patient had very carefully tied the prescription round her neck!

### CURE-MONGERING QUACKS.

If we may judge by the prosperity of the proprietors of nostrums, belief in miraculous cures is almost as sound as in the days before the schoolmaster's rule. As a record of the fallacy of the system, it is related that the late Lord Gardenstone, himself a valetudinarian, took the pains to inquire for those persons who had actully attested marvellous cures, and found that more than two-thirds of the number died very shortly after they had been cured. Sir Robert Walpole, Lords Bolingbroke and Winnington were killed by cure-mongers.

### DROP MEASURE.

Normino is more fallacious than measuring fluids by Dropping; since the drops from the lip of a vial vary, chiefly according to the different force of the attraction of cohesion in different liquids. Thus, 60 drops of water fill the same measure as 100 drops of laudanum from a lip of the same size. The graduated glass measure used by apothecaries is the only certainty.

### CATS AND VALERIAN.

Valerian is a powerful nervous tonic: most Cats are fond of gnawing it, and seem to be almost intoxicated by it into outrageous playfulness. But this is not so peculiar an effect as is imagined; for the nerves of cats afford a very tender test of the powers which any substances possess of affecting the nerves. The poisoned darts of the Indians, tobacco, opinm, brandy, and all the incbriating nervous poisons, are far more sensibly felt by the cat than by any other animal of equal size.

### WEIGHT OF THE HUMAN BODY.

WEIGHING-MACHINES, or contrivances for ascertaining the precise weight of the Human Body, are known to most persons, but the natural impediments to their accuracy are not so familiar. Indeed, the variation in the weight of the body will not admit of any degree of accuracy, from various circumstances referable to physical and vital causes. Among the first may be reckoned temperature and pressure, dryness and humidity, repose or agitation of the air; and among the second are, the constitutional health, repose and activity of the body, &c.; while some of the physical causes possess a double influence, both vital and physical, such as light. This is termed Transpiration, to which it is impossible to allude without immediately conjuring up in imagination the figure of old Sanctorius and his balance; the honest physician accurately weighing himself, so as to calculate his losses by transpiration at different periods, and compared with the quantities of food which he swallowed. But, in his days, the knowledge of physics was at a very low ebb, and hence his aphorisms require the more finished touch of modern physiology\*.

\* From the French of Dr. Edwards.

A MAN WEIGHS MORE BEFORE DINNER THAN AFTER.

This ridiculous Error is easily disproved; but much reasoning has been wasted on the subject, the reasoners forgetting, or not being acquainted with a story told of James the Sixth of Scotland. It seems that, in his time, it was the general belief that a pail of water weighed less with a goose in it, than it did without the bird; much discussion had arisen in the presence of James as to the cause of this singular result, but the philosophers could arrive at no satisfactory conclusion. At length, the wary monarch asked them whether it would not be as well to ascertain whether the fact was true before they argued on the matter. They took his advice, and discovered their error.

Sir Thomas Browne notes on this Error: "Many are of opinion, and some learned men maintain, that men are lighter after meals than before, and that by a supply and addition of spirits obscuring the gross ponderosity of the aliment injected; but the contrary hereof we have found in the trial of sundry persons in different ages and sexes. And we conceive men may mistake if they distinguish not the sense of levity unto themselves, and in regard of the scale or decision of brutination. For, after a draught of wine, a man may seem lighter in himself from sudden refection, although he be heavier in the balance, from a corporal and ponderous addition; but a man in the morning is lighter in the scale, because in sleep some pounds have perspired; and is also lighter unto himself, because he is refected\*."

A man is, however, taller on his rising in the morning than at night; for the cartilages between the vertebra of the back-bone, twenty-four in number, yield considerably to the pressure of the body in an erect position in the day, and expand themselves during the repose of the night.

#### GOOD AND BAD COOKERY.

A CLEVER critic of the day observes that after good wine and a good dinner, even though composed of a variety of dishes, he feels well and in good spirits, whereas a single plate of bad food puts him out of tune. In explanation of this, he allows that a multitude of physiological causes may

<sup>\*</sup> Vulgar Errors, b. iv. c. vil. p. 931,

be assigned; but, looking at the matter from a refined and moral point of view, good taste is in itself meritorious, and meets with its reward; but bad food reduces a man nearer to the level of a beast, and he is punished accordingly.

# BATIONALE OF COOKERY.

"Taste and try" will alone ensure success in cookery; and a few years' experience is better than a volume upon the art. A medical man once asked Ude why cooks had not weights and measures, as apothecaries, to which Ude replied: "Because we taste our recipes, whereas doctors seldom taste those they are mixing; wherefore they must have exact measures." Dr. A. Hunter acknowledges: "I was once so presumptive as to suppose that the seasoning might be weighed out after the manner directed by physicians in their prescriptions, but I soon found that my plan was too mechanical. I have, therefore, abandoned it, and now freely give to the cooks the exercise of their right in all matters that regard the kitchen\*."

# DINING ALONE.

Dr. Holland advises the dyspeptic to dine from a simple but discreet table, at regular hours; but he well adds, that "if this rule should bring him to a solitary meal, set apart for himself, more of ill than of good results!"

Again: Solitary dinners ought to be avoided as much as possible, because solitude produces thought, and thought

tends to the suspension of the digestive organs!."

# READING AFTER MEALS.

The homely maxim of "Do one thing at a time," was, perhaps, never better illustrated than in the prejudicial effects of Reading immediately after Meals, an Error which alike leads to the sacrifice of time and health. "When the stomach is full, the less the mind has to do with it the better a lesson on which all who endeavour to digest at the same time tough chops, and mental food of equal resistance, in the shape of reports legal and parliamentary, should pender. There are few individuals more dyspeptic than those who pursue day after day the above regimes, and fewer who are not surprised at the effect of only two mutton chops and regular hours,"

\* Receipts in Modern Cookery. † Modical Notes. † Walker † Quarterly Review.

# "THIRTEEN TO DINNER."

There is a prejudice existing, generally, on the pretended danger of being the thirteenth at table. If the probability be required, that out of thirteen persons, of different ages, one of them, at least, shall die within a year, it will be found that the chances are about one to one that one death, at least, will occur. This calculation, by means of a false interpretation, has given rise to the prejudice, no less ridiculous, that the danger will be avoided by inviting a greater number of guests, which can only have the effect of augmenting the probability of the event so much apprehended\*.

#### OLD ALMANACS.

THE superstitious practice formerly observed in our Almanacs, but now almost exploded, of placing each limb of the body under a particular sign of the Zodiac, is of high antiquity, being attributed to Nechepsos, or Nerepsos, an Egyptian, and author of several treatises on astronomy, astrology, and medicine, who fived in the age of Sesostris. Its object, we are told, was to enable the medical practitioners, (who are supposed to have been of the priestly order,) to apply suitable remedies to diseases affecting any particular member. From Egypt this superstition passed to the Greeks and Romans; from them to the Saracens; and being, by the latter, transmitted to the school of Salerno, it was acted upon in the medical practice of every European country. Such absurdities, assuredly, afford no very favourable indication of the vaunted science of that extraordinary people among whom they took their rise; but it would be rash to conclude, that the attestations of the highest ancient authorities to the progress of the Egyptians in the sciences, at a remote period, are groundless, because their knowledge was mixed up with superstitions inconsistent with truth and sound philosophy+.

The Almanac superstitions of the last century were, certainly eclipsed by those of the two preceding centuries. In Shakspeare's day, for example, Leonard Digges, the Francis Moore of that period, not only prognosticated for the day, week, or year, but "for all time,"

<sup>\*</sup> M. Quetelet on the Calculation of Probabilities. † Proceedings of the Royal Society of Literature, 1836.

as the title-page of his almanac shows: "A Prognostication encrimings of right good effect, fruitfully augmented by the auctour, contayning plain, briefe, pleasaunte, chosen rules to indge of the Weather by the Sunne, Moone, Brarres, Comets, Rainebow, Thunder, Cloudes, with other extraordinarye tokens, not omitting the Aspects of the Planets, with a briefe indgement for ener, of Plenty, Lucke, Sickness, Dearth, Warres, Sc., opening also many natural

causes worthy to be knowen." 1575.

It is true that we still have our prophetic almanaes, but they are now looked on with the eye of curiosity rather than belief. It is singular how long the human mind will eling to folly to which it is accustomed, long after the understanding is satisfied of its want of truth. As far back as 1007, we find the following prohibition of prophetic almanacs; and yet even in the present day, some wretched trash is published under the same title. " All conjurors and framers of prophecies and almanacs, exceeding the limits of allowable astrology, shall be punished severely in their persons. And we forbid all printers and booksellers, under the same penalties, to print, or expose for sale, any almanaes or prophecies, which shall not first have been seen and revised by the archbishop, the bishop, (or those who shall be expressly appointed for that purpose,) and approved of by their certificates signed by their own hand, and, in addition, shall have permission from us or from our ordinary Judges,"

Such follies as the above have been smartly satirised in "The Comic Almanack," a humorous attempt to laugh mankind out of their weaknesses, by the force of pleasant ridicule. The idea is altogether original, and we believe

peculiar to our times.

# MOORE'S ALMANAU.

The largest impressions of any single book, perhaps, ever sold, have been those of Moore's Almanac, a proof of the prevalence of superstitious error. For many years, during the late wars, when political excitement was excessive, the Stationers' Company sold from 420,000 to 480,000 of Moore's Astrological Prophesing Almanac. About fifty years since, the Company resolved no longer to administer to this gross credulity, and, for two or three years, omitted the predictions, when the sale fell off one

half; while a prognosticator, one Wright, of Eaton, near Woolstrope, published another almanac, and sold 50,000 or 60,000. To save their property, the Company engaged one Andrews, of Royston, also a native of Woolstrope, to predict for them, and their sale rose as before\*.

#### POLITICAL PROPHECIES.

THE belief that some human beings could attain the power of inflicting ills on their fellow-creatures, and of controlling the operations of nature, is one of the highest antiquity. "Time was, when the astrologer acted no inconsiderable part in the world of politics: but, yielding to the stern decree of fate, his occupation now is gone. Jacob's staff is broken. The brazen astrolabe is green and cankered. Dust and cobwebs cover the tomes of Ptolemy and Haly; and the garrets of Spitalfields and the Seven Dials are untenanted by the Seers, who whilom dealt out their awful prognostications of changes in church and state. So far we seem to have gained a victory over the superstitions of the middle ages; but our superiority, in some respects, exists rather in apprehension than in reality; and we have only changed the appearance of the disease. Those who would have been misled in ancient times are equally deceivable in modern days. Human folly is as immortal as the race; and, though we have dragged the astrologer out of his arm-chair, there are others who have succeeded to his contemned honours, for he was guided in his lucubrations by an imperishable instinct." The sage who would heretofore have foretold plague and pestilence, war and bloodshed, from the Zodiac, now acquires the same popularity by deducing the calamities of this nether world from the assemblage of monarchs at a congress; and, instead of watching the orbit of the planet, he fulfils his duty by reporting the course of the minor star that glitters on the breast of the plenipotentiary.

One of Howell's rambling Letters, though dated from the Fleet prison, August 9, 1684, contains much pleasant gossip of the predictions of "some of the British Bards." "They sing of a Red Parliament, and a White King; of a race of people which should be called penguins; of the fall of the Church; and of divers other things which glance upon these times. But I am none of those that

<sup>\*</sup> Sir R. Phillips. + Quarterly Review.

afford much faith to rambling prophecies, which, as was said elsewhere, are like so many odd grains sown in the vast field of time, whereof not one in a thousand comes to grow up again and appear above ground. But that I may correspond with you in some part for the like courtesie, I send you these following prophetic verses of White Hall, which were made above twenty years ago, to my knowledge, upon a book called Balaam's Ass, that consisted of some invectives against King James and the Court, in statu quo tunc; it was composed by one Mr. Williams, a counsellor of the Temple, but a Roman Catholic, who was hanged, drawn, and quartered at Charing Cross for it; and I believe there be hundreds that have copies of these verses ever since that time, about town, yet living. They were these:

'Some seven years since Christ rid to Court,
And there he left his ass;
The courtiers kick'd him out of doors,
Because they had no genss;
The ass went mourning up and down,
And thus I heard him bury,
If that they could not give me genss,
They might have given me bury;
But sixteen hundred forty-three,
Whoso e'er shall see that day,
Will nothing find within that Court
But only grass and bary,' &c.

"Which was found to happen true in White Hall, till the soldiers coming to quarter there, trampled it down-

"Truly, sir, I sha'l find all things conspire to make strange mutations in this miserable island. I fear we shall fall from under the sceptre to be under the sword: and since we speak of prophecies, I am afraid among others, that which was made since the Reformation will be verified: 'The Churchman was, the Lawyer is, the Soldier shall be.' Welcome be the will of Gcd, who transvolves kingdoms, and tumbles down monarchies, as molehills, at his pleasure."

### VALUE OF POPULABITY

POPULABITY is, by no means, so certain a test of virtue as it is commonly thought to be "It is often an honourable acquisition; when duly earned, always a test of good done, or evil resisted. But to be of a pure and genuine

kind, it must have one stamp—the security of one safe and certain die; it must be that popularity that follows good actions, not that which is run after\*.

#### PARSIMONY AND ECONOMY.

Breke thus felicitously distinguishes these opposite lines of conduct, which, in domestic affairs, are too often confounded. "Mere Parsimony is not Economy. Expense, and great expense, may be an essential part in true economy. Economy is a distributive virtue, and consists, not in saving, but in selection. Parsimony requires no providence, no sagacity, no powers of combination, no comparison, no judgment. Mere instinct, and that not an instinct of the noblest kind, may produce this false economy in perfection."

### DOCTRINES OF CHANCE.

The Doctrines of Chance are of much less importance than most persons are inclined to regard them. The cause is thus explained by a popular writer:—"Chance very little disturbs events, which, in their natural constitution, were designed to happen or fail according to some determined law. It may produce the appearance of inequality in the turning up of the head or reverse of a coin; still, the appearance, one way or other, will perpetually tend to the proportion of equality. Thus, in all cases it will be found, that although chance produces irregularities, still the odds will be infinitely great, so that in process of time, these irregularities will bear no proportion to recurrence of that order which naturally results from original design†.

### GAMING HELLS.

The room in St. James's, formerly appropriated to Hazard, was remarkably dark, and conventionally called by the inmates of the palace, "Hell." Whence, and not as generally supposed, from their own demerits, all the Gaming-houses in London are designated by the same fearful name. Those who play, or have played, English Hazard, will recollect that, for a similar inconsequent reason, the man who raked up the dice, and called the odds, was designated "the groom-porter‡."

<sup>\*</sup> Edinburgh Review. † Facts in various Sciences.

2 Theodore Hook.

# GAME OF "BEGGAR MY NEIGHBOUR."

"I cannot call to mind (says 'The Doctor') anything which is estimated so much below its deserts as the game of Beggar-my-Neighbour. It is generally thought fit only for the youngest children, or for the very lowest and most ignorant persons into whose hands a pack of cards can descend; whereas, there is no game whatever in which such perpetual opportunities of calculation are afforded to the scientific gamester; not indeed for playing his cards, but for betting upon them. Zerah Colburn, George Bidder, and Professor Airy, would find their faculties upon the stretch, were they to attempt to keep pace with its chances.

"It is, however, necessary that the reader should not mistake the spurious for the genuine game, for there are various modes of playing it, and, as in all cases, only one, which is the orthodox way. You take up trick by trick. The trump, as at other games, takes every other suit. If suit is not followed, the leader wins the trick; but if it is, the highest card is the winner. These rules being observed, (I give them, because they will not be found in Hoyle), the game is regular, and affords combinations worthy to have exercised the power of that calculating machine of flesh and blood, called Jedediah Buxton."

### INVENTION OF CARDS.

THE general opinion respecting the Origin of Playing Cards is, that they were first made for the amusement of Charles VI. of France, at the time of his mental derangement, which commenced in 1392, and continued for several years. This supposition depends upon an entry in the account-book of the treasurer of the unhappy monarch, which states a payment of fifty-six sols of Paris to have been made to Jacquemin Gringonneur, painter, for three packs of cards, gilded, and painted with divers colours and different devices, for the diversion of his majesty. this statement, Strutt observes: " If it be granted-and I see no reason why it should not-that this entry alludes to playing cards, the consequences that have been deduced from it do not necessarily follow. I mean that these cards were the first that were made, or that Gringonneur was t-ventor of them; it by no means precludes the possibility of cards having been previously used in France, but simply states that those made by him were gilt and diversified with devices in variegated colours, the better to amuse the unfortunate monarch.

"Some, allowing that Gringonneur was the first maker of playing-cards, place the invention in the reign of Charles V., upon the authority of Jean de Saintre, who was page to that monarch, and who thus mentions cardplaying in his chronicle: 'Et vous qui êtes noyseux, joueux de cartes et de dis,—And you who are contentious, play at cards and at dice.' This would be sufficient evidence," (adds Strutt,) "for the existence of cards before the accession of Charles VI. to the throne of France, if it could be proved that the page did not survive his master; but, on the other hand, if he did, they may equally be applied to the amusements of the preceding reign\*."

This position receives some support from a passage discovered in an old manuscript copy of the romance of Renard le Contre fait, where it appears that cards were known in France about 1340. They were, probably, known in Spain as early as in France; for, in 1357, John I., king of Castile, issued an edict against cardplaying in his dominions. Baron Heineken claims their invention for Germany, where he states them to have been known as early as the year 1376. And an English author produces a passage cited from a wardrobe account of 1377, the sixth year of Edward I., which mentions a game entitled "the four kings +;" and hence he reasonably conjectures that the use of playing-cards was then known in England.

It is the opinion of several learned writers well acquainted with Asiatic history, that cards were used in the East long before they found their way into Europe‡. If this position be granted, when we recollect that Edward I., before his accession to the throne, resided nearly five years in Syria, he may reasonably be supposed to

† "Waltero Sturton, ad opus Regis, ad ludendum ad quatuor reges," viiis. vd." Anstis, History of the Garter.

<sup>\*</sup> Strutt's Sports and Pastimes of the People of England, b. iv. c. ii. p. 323.

<sup>‡</sup> Warton says, it seems probable that the Arabians were the inventors of cards, which they communicated to the Constantinopolitan Greeks—Hist. Eng. Poetry, vol. ii. p. 316. Indeed, it is very likely that they were brought into the western parts of Europe during the Crusades.

have learned the game of "the four kings" in that country, and introduced it at court upon his return to England.

An argument against the great antiquity of playing-cards is drawn from the want of paper for their fabrication; paper made with linen rags not having been produced in Europe before the middle of the fourteenth century. Here, however, it is presupposed that cards could not possibly be made with any other material, which is by no means certain.

## POPULATION AND PROSPERITY.

The ratio of increase in a Population has almost universally been taken as an accurate test of prosperity. Such, however, appears not to be the fact: for more recent opinions state, that a community nearly stationary promises better for enjoyment\*.

### POPULARITY OF AUTHORS,

Tur failures of the English genius, and the success of mediscrity, are matters of general surprise, for want of ducconsideration of their causes. It has been well observed by a contemporary critic, that " it is a melancholy and humiliating truth, to which the whole history of literature bears evidence, that mediocre writers often are, in their generation, more successful than excellent ones; and that the vicious not seldom bear away the meed of popularity from both. Nor is it difficult to account for this. The great majority of men, whatever pains may be bestowed in educating them, will ever be incapable of any high degree of intellectual elevation. Give all we can, this never can be given to those who have not received from nature higher faculties than are required for the ordinary business of the world;" but such individuals constitute the public; " and it is to the sovereign impesty of the public, and its will and pleasure, that they who would prosper must address themselves. Lord Hyron sneered at those who looked to the third and fourth generations for their reward. Milton thought differently, and so his audience were fit, was contented that it should consist of few. He looked to after ages for fame, and therefore was regardless of popullarity; he left that to Cleveland, and Waller, and Cowley, for their verse, and to Bir Roger l'Estrange for his prose [...

<sup>\*</sup> Proc. Brit. Assoc, 1996. | Quarterly H. view.

#### CLEVER STATESMEN.

However great talents may command the admiration of the world, they do not generally best fit a man for the discharge of social duties. Swift remarks, that "Men of great parts are often unfortunate in the management of public business, because they are apt to go out of the common road by the quickness of their imagination. This I once said to my Lord Bolingbroke, and desired he would observe, that the clerk in his office used a sort of ivory knife with a blunt edge to divide a sheet of paper, which never failed to cut it even only by requiring a steady hand; whereas, if he should make use of a sharp penknife, the sharpness would make it go often out of the crease, and disfigure the paper."

#### POPULAR PHILOSOPHY.

In estimating the opinions of a Philosopher, it is too often forgotten, that, as Coleridge quaintly expresses it, "his ordinary language and admissions in general conversation, or writings ad populum, are as his watch compared with his astronomical timepiece. He sets the former by the town clock, not because he believes it right, but because his neighbours and his cook go by it." The "table-talk" of illustrious men has too often been made to misrepresent their opinions. Notes of the table-talk of Luther, published many years after his death, and then perhaps very inaccurately, continued to furnish the viler sort of antagonists with means of abuse, in the ardent phrases which fell from him amidst the negligence of familiar conversation\*.

#### WRITING FOR THE MANY.

The great Error of those who write for the masses is, their rating too highly the average intellect of those whom they strive to attract as readers. Molicre's justification to some one who had censured him for preferring broad, homely merriment, to elevated comedy, may be quoted by those who aim at wide popularity by common means, but are capable of better things; and the observation may apply to almost any pursuit. "If I wrote simply for fame," said Moliere, "I should manage very differently: but I

<sup>\*</sup> Bayle, art. Luther.

write for the support of my company. I must not address myself, therefore, to a few people of education, but to the mob: and this latter class of gentry take very little interest in a continued elevation of style and sentiment."

#### COMMON CAUSE OF FAILURE.

Where a thing requires a great deal of care, it is well done, because the whole attention is directed to it—where a little attention would suffice, even that little is refused, and some accident follows.

## "A BOSOM FRIEND."

Almost every man in the world possesses some friend, to whom he confides more of his secrets than he imparts to others. That such associations are generally beneficial cannot be denied; but they have also their disadvantages, which are thus incidly shown by a contemporary.-" The greatest pleasure in life is the society of a friend, with whom, in unrestrained exposition of one's thoughts, one may unravel and disentangle each skein of knotted prejudice and many-coloured opinion. In such intimacies, however, cultivated exclusively, what Lord Bacon termed idola specus are sure to be worshipped. The principles may be right, the understanding may be sound, but the world is viewed from a single point, and to a certain extent inevitably erroneously. A true estimate of mankind, and of the value of human pursuits, can alone be formed by one who corrects his closest speculations by the collective judgment of so ciety."

## OBSTINACY AND FIRMNESS.

OBSTINACY is almost always found to exist in proportion to the weakness of the intellect where it is lodged, and, strange to say, is often mistaken by its possessor for Firmness. He, however, is the only person who can entertain any doubt on this subject; for all who come in contact with him are soon aware of the difference, a difference unlike many others, because it has a striking distinction.

#### SECRET OF HAPPINESS.

HAPPINESS is by no means so rare as is generally imagined; and its secret lies in a nutshell, as in the following passage from "Conversation Sharp's" delightful

<sup>\*</sup> Earl Dudley. † Mayo's Philosophy of Living.

Essays:—"If you cannot be happy in one way, be happy in another: and this facility of disposition wants but little aid from philosophy; for health and good-humour are almost the whole affair. Many run about after felicity, like an absent man hunting for his hat while it is on his head, or in his hand\*." Yet, with a'l these "means and appliances," there is much counterfeit happiness in life, recalling the elegant simile of the poet:—

"As a beam o'er the face of the waters may glow,
While the tide runs in darkness and coldness below;
So the check may be tinged with a warm sunny smile,
Though the cold heart to ruin runs darkly the while."

#### WANT OF A PURSUIT.

There are no greater mistakes in social philosophy, than the supposition that idle persons are happy; or that those who aim at all things must succeed in many. "A man without a predominant inclination is not likely to be either useful or happy. He who is everything is nothing." Again: "the most important principle in life is to have a pursuit—a useful one if possible, and at all events, an innocent one†." What truth then lies in these quaint rhymes:—

"The working fire is Action strong and true, And helps ourselves and friends; And Speculation is the chimney-flue Whereby the smoke ascends: Be busy in trading, receiving, and giving, For life is too good to be wasted in living.

# WHAT IS CHARITY ?

THE frequent misuse of the term "Charity," by applying it only to almsgiving, or casual assistance to the very poor, is thus pertinently corrected by a sound divine

of the last century :-

"It is not in everybody's power, because he has not a fortune answerable to it, to form a standing habit of Charity, by redressing the injured, relieving the distressed, and cherishing men of merit; but it is in everybody's power to beget in himself this lovely disposition of mind, by studying to adjust his temper to theirs with whom he lives, by complying with their humours as far as he innocently can, by soothing their distresses, bearing with their

<sup>\*</sup> Sharp's Essays.

infirmities, and by incommoding himself in some points to gratify others. On the contrary, the indulgence of an occasional fit of ill-humour paves the way to an habitually bad temper. And to those who think it a small matter, Solon's answer is a very just one: 'Yes, but custom is a great one.' Did we consider seriously, that, as often as we are exerting a spirit of needless contradiction, or venting an ill-natured wit to mortify those about us, we are cherishing a principle of ill-will, the very temper of the damned, it would, it is to be hoped, put some stop to this practice. But here the misfortune lies: men are more ambitious to display the abilities of the head, than to cultivate the good qualities of the heart; though the latter are in everybody's power; the former, few have any title to\*."

## CORRECTION OF ERROR.

To unlearn is harder than to learn; and the Grecian flute-player was right in requiring double fees from those pupils who had been taught by another master. "I am rubbing their father out of my children as fast as I can," said a clever widow of rank and fashion!."

Sir Thomas Browne attributes the belief in fallacies to the want of knowledge; and, speaking of the persons who are under the influence of such belief, says :- "Their understanding is so feeble in the discernment of falsities, and averting the errors of reason, that it submitteth to the fallacies of sense, and is unable to rectify the error in its sensations. Thus, the greater part of mankind, having but one eye of sense and reason, conceive the earth far bigger than the sun, the fixed stars lesser than the moon, their figures plane, and their spaces from the earth equidistant. For thus their sense informeth them, and berein their reason cannot rectify them; and therefore, hopelessly continuing in mistakes, they live and die in their absurdities, passing their days in perverted apprehensions and conceptions of the world, derogatory unto God, and the wisdom of the creation.1"

<sup>\*</sup> Seed. † Sharp.

<sup>‡</sup> A contemporary thus points to a common Error of this class: "Mentalk of Nature as an abstract thing, and lose sight of Nature while they do so. They charge upon Nature matters with which she has not the smallest connexion, and for which she is in no way responsible." This is one of those happy quips of world knowledge which abound in the writings of Mr. Charles Dickens, and which bid fair to outlive the gossaner of his genius.

## UNPOPULAR IMPROVEMENTS.

There is not one single source of human happiness against which there have not been uttered the most lugularious predictions. Turnpike roads, navigable canals, inoculation, hops, tobacco, the reformation, the revolution. There are always a set of worthy and moderately-gifted men, who bawl out death and ruin upon every valuable change which the varying aspect of human affairs absolutely and imperiously requires. It would be extremely useful to make a collection of the hatred and abuse that all those changes have experienced, which are now admitted to be marked improvements in our condition. Such an history might make folly a little more modest, and suspicious of its own decisions\*.

## BENEFITS OF CIVILISATION.

Many travellers. Peron in particular, have mentioned a fact which is worthy of notice, viz., that savages, far from being stronger than civilised people, are weaker; an additional proof that civilisation is beneficial to the destiny of human nature, and that the state of nature, of which Roussean, in his disquiet at a corrupt state of society, has formed an ideal felicity, is far from bringing us in contact with physical perfections. Everything demonstrates, that man is sociable, and in a progressing state; but this progress is often shackled, his sociability rendered tortuous by individual egotism, and by the vicious nature of our institutions.

#### EFFECTS OF PRINTING.

Many persons, in their affection for works of antiquity, are apt to rate the present generation for their neglect of ancient art, or their depreciation of its labours; forgetting that the ingenuity of man is accomplishing greater wonders by other means. This position may be illustrated by a note in Sir Charles Bell's Bridgewater Treatise. Speaking of that grand revolution which took place when language, till then limited to its proper organ, had its representation in the work of the hand, Sir Charles says: "Now that a man of mean estate can have a library of

\* Sydney Smith.

7

mo e intrinsic value than that of Cicero, when the sentiments of past ages are as familiar as those of the present, and the knowledge of different empires is transmitted and common to all, we cannot expect to have our sages followed, as of old, by their five thousand scholars. Nations will not now record their acts by building pyramids, or by consecrating temples and raising statues, once the only means of perpetuating great deeds or extraordinary virtues. It is vain that our artists complain that patronage is withheld: for the ingenuity of the hand has at length subdued the arts of design—printing has made all other records barbarous, and great men build for themselves a 'live-long monument.'"

Yet Howell observes, in one of his Familiar Letters, date 1646: "Nor did the art of printing much avail the Christian commonwealth, but may be said to be well near as fatal as gunpowder, which came up in the same age."

#### ERRORS IN PRINT.

EVERY statement in print receives, from this very circumstance, a kind of authority; and what has not been said in print? Newspapers, much as they contribute to general information, also contribute much to the propagation of unfounded reports. The counter statements of opposite papers serve, indeed, in some measure, to correct each other's misrepresentations; but, as the mass of people read only the papers of their own party, misstatements will inevitably gain a footing; and a man who is desirous of believing only the truth, must subject the stories admitted on hearsay by his party to a critical scrutiny. was long believed that a female was raised to the papal chair, under the name of John VIII.; and how many persons have credited the stories that Napoleon used to beat his wife, which are repeated in some miscalled histories of Buonaparte!

## LIMIT OF KNOWLEDGE.

The impossibility of arriving at certain points of inquiry is often advanced by weak inquirers as a reason for not commencing the pursuit; as though approximation to knowledge were not more desirable than extreme ignorance. Sir Charles Bell forcibly illustrates this position in his invaluable *Bridgewater Treatise*. "Voltaire has

said that Newton, with all his science, knew not how his arm moved! So true it is that all such studies have their But, as he acknowledges, there is a wide difference between the ignorance of the child or of the peasant, and the consciousness of the philosopher that he has arrived at a point beyond which man's faculties do not carry We may add, is it nothing to have the mind awakened to the many proofs of design in the hand,-to be brought to the conviction that everything is orderly and systematic in its structure,—that the most perfect mechanism, the most minute and curious apparatus, and sensibilities the most delicate and appropriate, are all combined in operation that we may move the hand? What the first impulse to motion is we do not know, nor how the mind is related to the body; yet it is important to know with what extraordinary contrivance and perfection of workmanship the bodily apparatus is placed between that internal faculty which impels us to the use of it, and the exterior world."

#### KNOWLEDGE AND HAPPINESS.

THE well-meaning advocates for the Diffusion of Knowledge have been accused of overrating its increase of human Happiness; with what justice, may in some measure be estimated by the fact that "the extension of knowledge has not necessarily the effect of raising the mind to more consolatory contemplations. We may consider man. before the lights of modern philosophy had their influence on his thoughts, as in a state more natural; inasmuch as he yielded unresistingly to those sentiments which flow directly from the objects and phenomena around him." But, when man began to make natural phenomena the subjects of experiment, or of philosophical inquiry, then there was some danger of a change of opinion, not always beneficial to his state of mind. "This danger does not touch the philosopher so much as the scholar. He who has strength of mind and ingenuity to make investigations into Nature, will not be satisfied with the discovery of secondary causes —his mind will be enlarged, and the objects of his thoughts and aspirations become more elevated. But it is otherwise with those not themselves habituated to investigation, and who learn, at second-hand, the result of those inquiries. If such an one sees the fire of heaven brought down in a

phial, and materials compounded, to produce an explosion louder than the thunder, and ten times more destructive, the storm will no longer speak an impressive language to When in watching the booming waves of a tempestuous sea along the coast, he marks the line at which the utmost violence is stemmed, and by an unforeseen influence thrown back, he is more disposed to feel the providence extended to man, than when the theory of the moon's action is, as it were, interposed between the scene which he contemplates, and the sentiments naturally arising in his Those influences on the mind which are natural and just, and beneficently provided, and have served to develop the sentiments of millions before him, are dismissed as things vulgar and to be despited. With all the pride of newly acquired knowledge, his conceptions embarrass, if they do not mislead him; in short, he has not had that intellectual discipline, which should precede and accompany the acquisition of knowledge "."

## MORAL SCIENCE.

Uncertainty is the common reproach of all branches of Moral Science; but the reproach is often made without fair consideration of the limits to which it should be subject. The principles of moral science ought not to be confounded with the uncertainty which belongs to the complex and variable subject-matter to which they are made to apply. Some assert that the uncertainty flows from the doubt as to what mind is, while no such doubt exists as to what they see and feel. This is a mental mistake arising from inattention to the evidence upon which conviction of the existence of a thing depends †.

## PLUBALITY OF WORLDS.

DR. JERKIN, in his Discourses upon the Reasonableness and Certainty of the Christian Religion, takes into his consideration the opinion of those persons who thought that the stars would shine to little purpose unless there were other habitable worlds besides this earth whereon we dwell. One of the uses for which they serve, he supposes, to be this: that in all ages the wits of many men. whose curiosity might otherwise be very ill employed, have been busied in considering their end and nature, and calculating their

<sup>\*</sup> Sir Charles Bell's Bridgewater Treatise.

Mr. Field; Proc. Royal Institution.

distances and motions; a whimsical argument, in advancing which he seems to have forgotten the mischievous purposes to which so much of the wit which had taken this direction had been applied \*.

## RELIGIOUS MELANCHOLY.

To guard against the Errors and sufferings of Religious Melancholy, persons should observe, carefully, whether the state of their feelings is not materially affected by their bodily health, and whether they do not find the former depressed in proportion as the latter is disordered. If they acknowledge this to be the case, they should avoid the weakness of supposing the health of their souls dependent on the state of their bodies; which in fact they do, by connecting the state of their salvation with the state of their spirits. They are guilty of the absurdity of making the favour of Heaven depend on a diseased liver, a weak stomach, or a checked perspiration. Let them go to Dr. Paris, and not to the Tabernacle.

### REASON AND REVELATION.

Much scepticism has been engendered, of late years, by tyros in science straining after identities of physical truths with Scripture. "There are, indeed," observes the Rev. W. L. Harcourt, "certain common points in which Reason and Revelation mutually assist each other; but, in order that they may ever be capable of doing so, let us keep their paths distinct, and observe their accordances alone; otherwise our reasonings run round in a circle, while we endeavour to accommodate physical truth to Scripture, and Scripture to physical truth †."

#### RELIGIOUS ERRORS.

In forming our estimate of a religious life, we must not only beware of that partial view which takes in devotion and overlooks the active duties of Christianity; but also of the common Error respecting devotion, which makes it consist, not in a piety equally removed from indifference and enthusiasm, but in a passionate orgasm of theopathy; and of the not less common Error respecting Christian duty, which makes it consist, not in self-government, but in the mortifications of an ascetic discipline; not in that

<sup>\*</sup> The Doctor, vol iii, p. 215. † Address. Brit. Assoc. 1839. p. 2

course of action which a merciful God has caused to be the most effectual proof of faith, whilst he has appointed it the indispensable condition of receiving eternal blessings, but in a course of suffering which would purchase eternal happiness by temporal misery \*.

### SCRIPTURAL MIRACLES.

IGNORANT sceptics are accustomed to explain their doubt of Miracles by their non-occurrence in the present times. Such persons overlook, in reading the Scriptures, the striking difference between the dispensations of God in the times of our Saviour and his apostles, and in our own. Then miracles were wrought on the bodies and minds of Christians, in order to establish the truth of the Gospel. That object being effected, miracles became rare, or ceased altogether.

## THE BEST PLATTERY.

Ir has been remarked that deference is the most elegant species of Flattery; and that reciprocal flattery often passes for mutual merit; though such base coin, when detected, ought to be nailed to the counter, to prevent it any further passing current. Swift observes, "This is a sensible author—he thinks as I do." "My wife's nephew," says The Doctor, "is a sensible lad. He reads my writing, likes my stories, admires my singing, and thinks as I do in politics: a youth of parts and considerable promise."

## CAUSE AND EFFECT.

The misplacement of Effect for Cause was, perhaps, never better illustrated than by the old lady, on showing the tapestry at Bayeux, observing in praise of the descriptive pamphlet she offered for sale: "depuis qu'on a vendu ces livres, beaucoup de personnes sont venues voir la tapisserie!" It is presumed that the old lady had never read the folios of Montfaucou.

## ERRORS OF THE IMAGINATION.

The faculty called Imagination has caused more absurdity and misery in the world than many persons are aware of. Gibbon has well remarked, that "persons of imagination are always positive:" and, we need not add, that to oppose a positive man is, generally, to confirm him in his opinion.

\* Quarterly Review.

#### CREDULITY AND SUPERSTITION.

CREDULITY, although it is nearly allied to Superstition, yet differs from it widely. Credulity is an unbounded belief in what is possible, although destitute of proof, and perhaps of probability; but superstition is a belief in what is wholly repugnant to the laws of the moral and physical Credulity is a far greater source of error than world. superstition; for the latter must be always more limited in its influence, and can exist only to a considerable extent in the most ignorant portions of society; whereas, the former diffuses itself through the minds of all classes. by which the rank and dignity of science are degraded, its valuable labours confounded with the vain pretensions of empiricism, and ignorance is enabled to claim for itself the prescriptive right of delivering oracles, amidst all the triumph of truth and the progress of philosophy. Credulity has been justly defined belief without reason, while scepticism, its opposite, is reason without belief, and the natural and invariable consequence of credulity; for it may be observed, that men who believe without reason are succeeded by others whom no reasoning can convince\*.

## BENEFIT OF DOUBT.

WITH equal eloquence and acumen has Mr. W. S. Landor observed: "All schools of philosophy, and almost all authors, are rather to be frequented for exercise than freight; but this exercise ought to acquire us health and There is none of strength, spirits and good-humour. them that does not supply some truths useful to every man, and some untruths equally so to the few that are able to wrestle with them. If there were no falsehood in the world, there would be no doubt; if there were no doubt, there would be no inquiry; if no inquiry, no wisdom, no knowledge, no genius. Fancy herself would lie muffled up in her robe, inactive, pale, and bloated." Sharon Turner, too, has acutely remarked: "Doubt and obscurity are but additional temptations to aspiring genius. To great minds, the unknown is as attractive as the wonderful; and untried danger is but a mysterious incentive to explore it."

\* Dr. Paris's Pharmacologia.

#### EDUCATION.

#### LOVE OF CHILDREN.

It is a false and mistaken notion altogether, that men of great mind and intense thought are easily wearied or annoyed by the presence of Children. The man who is wearied with children must always be childish himself in mind; but alas! not young in heart. He must be light, superficial, though perhaps inquiring and intelligent; but neither gentle in spirit, nor fresh in feeling. Such men must always soon become wearied with children; for very great similarity of thought and of mind-the paradox is but seeming-is naturally wearisome in another; while, on the contrary, similarity of feeling and of heart is that bond which binds our affections together. Where both similarities are combined, we may be the most happy in the society of our counterpart; but where the links between the hearts are wanting, there will always be great tediousness in great similarity\*.

## BENEFITS OF EDUCATION.

It is only within the last thirty or forty years that the children of the English poor have received any kind of Education, save what they were taught orally by their parents, or by the clergyman on Sunday afternoons, when he catechised the children in the church. Of course, very few of them could either read or write†. The rising generation, however, have all had some share of instruction in the parochial schools which are now generally established. Whether the effects anticipated from these establishments will ever be realised, is at present doubtful. It has certainly enabled some of the children to obtain for themselves better situations in life; and, though extreme ignorance in school-learning is not now so prevalent as it was, there

<sup>\*</sup> The King's Highway, by G. P. R. James,

<sup>†</sup> The English church service is admirably adapted for an uncducated congregation. The poor, who cannot read, have opportunity to hear the whole of the Scriptures read over once in every year. They repeat the confession and many of the supplicatory prayers and creed after the clergyman and precentor; and to every petition they give an audible assent; so that an attentive hearer soon becomes acquainted with everything he should believe, as well as all he should do, as a Christian.

are yet no very visible signs of moral amendment. Education, like all other blessings, is valuable only so far as it is rightly used. If the resolution to make a proper use could be enjoined along with the dissemination of it, all the expected good effects would undoubtedly follow from it, but not otherwise.

#### CULTIVATION OF THE CLASSICS.

ONE of the educational Errors of the day is a disparagement of the stores of Classic knowledge, "which have floated on the bosom of time, carrying riches and delight wherever they flow," and possessing great advantages over modern authorship. "That literature which has stood the test of so many ages, and which, under all varieties of soil and climate, customs and manners, is found to contain something satisfactory and analogous to the best feelings of the mind, seems to have attained a sort of moral certainty in its truth and taste, which leaves no room for doubt or speculation. Hence, to the cultivators of ancient literature there appears to belong somewhat of that conscious sense of security, and certainty, and enjoymen's, which Adam Smith assumes to be peculiar to the cultivators of the exact sciences, the algebraist and geometrician "."

The Latin and Greek classics stand by far too deeply rooted in the minds of the great and good to be shaken "arbitrio popularis aura;" and from their beauty and merit alone, must ever remain identified with the literature of modern nations:—on the mere ground of utility, as a branch of study, ten or twelve per cent. of the English words in any ordinary book are to be directly traced therefrom; but surely the dead languages, instead of being taken merely for what they are worth, should be rather acknowledged and received by a civilised people, as the elements of living tongues, and the earliest record of human intelligence illustrative of the gift of speech †.

#### UTILITY OF THE CLASSICS.

Years ago, Dr. Watts said all that could be said in reply to the arguments against Classical Learning, when he asked the use of a boy learning Latin who was intended for a soap-boiler. The answer is obvious: a school must

Quarterly Review. | Sir George Head's Home Tour.

teach something that will generally apply to the education of all, and leave the more particular education to be modified according to circumstances. To carry out the utilitarian scheme of accommodating education to the future profession of the scholar, every academy should be provided with its professors of soap-boiling, breeches making, corkcutting, &c. But even this would not succeed: for how many are the youths whom fortune turns from a profession they were in their earliest years destined to pursue, and whose education, if merely given with a view to that profession, would be entirely thrown away! How would the utilitarian routh, educated for a soan boiler, when his uncle, a rich tanner, bequeathed him his business, mourn that he had consumed his juvenile years in studying tallow and burilla! As every literary work presumes some knowledge of classical allusions at least, can any substitute be found more generally useful? As for commercial schools, a few years in a merchant's counting-house will throw every light on the mysteries of double-entry; and it is a notorious fact, that persons who come from these commercial schools, assert that they have learned a system of book-keeping utterly unknown to any man of business, a number of barbarous handwritings, used only for the decoration of Christmas pieces, and a cumbrous arithmetica which would excite a roar on Change. We are so heartily disgusted with an antipathy to that branch of learning in which our best and most distinguished men were edua familiarity with which will add so much to the relish for English and other modern literature, (instead, as the utilitarians would have it, of operating as a bar.) that we cannot resist pointing out its fallacies wherever it may be found".

## QUUTATION OF THE DEAD LANGUAGES.

THE custom of quoting the Dead Languages has been adverted to by Murray and other English grammarians, as a reprehensible Error; but it has been well observed that, "those who feel the charms of language as a mere vehicle of thought, experience a delight in the ancient tongues which no modern language can give; because, from their inflexion and compactness, the images rise at once to the mind, unweakened by any circumstances of juxtaposition.

<sup>\*</sup> Times Journal.

I Unarte le Reviet.

In short, all experience shows, how materially the taste and manners of a gentleman are improved by classical attainments.

## PRECOCIOUS TALENTS.

No common error is attended with worse consequences to the children of genius, than the practice of dragging Precocious Talent into early notice; of encouraging its growth in the hotbed of parental approbation, and of endeavouring to give the dawning intellect the precocious maturity of that fruit which ripens and rots almost simultaneously. Tissot has admirably pointed out the evils which attend the practice of forcing the youthful intellect. "The effects of study vary," says this author, " according to the age at which it is commenced: long-continued application kills the youthful energies. I have seen children full of spirit attacked by this literary mania beyond their years, and I have foreseen with grief the lot which awaited them ;- they commenced by being prodigies, and ended by becoming stupid. The season of youth is consecrated to the exercise of the body which strengthens it, and not to study, which debilitates and prevents its growth. Nature can never successfully carry on two rapid developments When the growth of intellect is too at the same time. prompt, its faculties are too early developed; and mental application being permitted proportioned to this development, the body receives no part of it, because the nerves cease to contribute to its energies; the victim becomes exhausted, and eventually dies of some insidious malady. The parents and guardians who encourage or require this forced application, treat their pupils as gardeners do their plants, who, in trying to produce the first rarities of the season, sacrifice some plants to force others to put forth fruit and flowers which are always of a short duration, and are, in every respect, inferior to those which come to their maturity at a proper season."

#### WHAT IS GENIUS ?

Genius and talents are often confounded. "To carry on the feelings of childhood into the powers of manhood; to combine the child's sense of wonder and novelty with the appearances, which every day for perhaps forty years had rendered familiar

With sun, and moon, and stars, throughout the year, And man and woman, —this is the character and privilege of genius, and one of the marks which distinguish genius from talent. Genius must have talent as its complement and implement, just as, in like manner, imagination must have fancy. In short, the higher intellectual powers can only act through a corresponding energy of the lower \*."

#### STYLE OF WRITING.

To say a person writes a good style is originally as pedantic an expression as to say he plays a good fiddlet.

#### PUBLIC EDUCATION.

ONE of the leading arguments of the advocates of special interference for regulating Education generally throughout the country, is that such a measure would not only tend to the benefit of the lower classes, but work in tender mercy towards the higher; from the apprehension that from this "march of intellect," the lower classes may gain undue pre-eminence. We are inclined to consider this a partial and erroneous view of the question, and to agree with Sir George Head, that "the matter may very well be allowed to rest in the old hands, and that parents and guardians may safely, as usual, continue to direct the course of education, particularly as experience shows that the energies excited have been simultaneous, instead of partial, and that all classes of society, not the lower classes. exclusively, have been awakened by a sympathetic stimulus; for it might be shown that knowledge has shed light in equal proportion over the higher ranks, were only the numerous public lectures delivered continually, year after year, on every branch of science, and in every great town of the kingdom, to be given as an example." Again: " the imperfections in our forms of education are, probably, more attributable to the apathy of parents and guardians than to the system itself: for though public schools may be said partly to lead public taste, they hold always in due deference public opinion; the intelligible definite expression of which, without special interference, will, no doubt, prove alone sufficient to investigate all necessary alterations 1."

<sup>\*</sup> Coleridge, | Shenstone, 1 Home Tour.

#### ARITHMETIC AND ALGEBRA.

Amost the numerous educational Errors which it is harder to unlearn than learn, is the neglect of the study of Arithmetical Algebra, which might certainly be made a more primary object of interest than has hitherto been the practice. "It was a trite adage when Horace was a boy,—

--- ut pueris olim dant crustula blandi Doctores, elementa velint ui discere prima;

vet, common custom tends rather to give a distaste to the science of numbers and quantities, than inspire the pupil with a sense of its beauty; as it is, the study is taken up altogether in a desultory way, and may rather be said, after a couple of hours' labour, to spoil a half-holiday than to afford direct advantage. Under the present system, a youth has scarcely shaken off the heavy machinery of primary rules, than he leaves school, and bids adieu to the subject for ever; and this notwithstanding the accumulating rapidity with which difficulties disappear in proportion to progress. It is really absurd that since, even in the further stages, there is no mental exercise more painful, one which requires more fixed attention, or more tenacity of thought, than the mere primary, mechanical process of multiplication, the student should be thus propelled, as it were, through stormy weather, and then be obliged to abandon his course the moment the light of reason illuminates his track, and teaches him to adapt principles painfully acquired to easy practice. Provided arithmetic be made a part of education, the student should never stop short of Algebra, (as he does in nine out of ten cases,) of which, by any one versed in common arithmetic, a tolerable insight may be obtained in a few months. By it he not only becomes thoroughly master of theory, but arrives, as it were, in an element; where, with every new object calculated to delight and surprise, he breathes afresh, inhales new life, and reposes in peace, half-suffocated by the turbid waters of the immortal Cocker. A problem in Algebra once arranged and commenced, no matter how frequent the interruptions, how sudden or how long the interval, an hour, a day, a week afterwards, -- it is resumed and pursued, precisely with the same inverest and the same facility as if no interruption at all had taken place.

the help of Algebra, the student not only at once perceives the use of all his early labours, and views the general principles of arithmetic laid bare in surprising beauty, but obtains, moreover, a master-key, wherewith to advance, at will, as fancy or interest in future days may lead, within the pale of mathematics \*."

#### LEARNING ARITHMETIC.

The order of the rules of Arithmetic appears to be singularly erroneous; for instance, as relates to Decimal Fractions. According to the present plan, a boy is led through all the primary rules before he is taught that a decreasing scale exists, to the right of the unit, precisely similar to that which increases to the left. As nothing can be more simple than the whole theory of Decimal Fractions, which operations are, in fact, the same as those in whole numbers, there is no reason why they should not be taught from the very beginning; which early insight would certainly tend to encourage reflection, at the expense of hardly any additional incumbrance of the mind.

Again,—the Rule of Three is universally learned by rote; a barrier at the beginning to the range of thought, beyond which the mind of a boy has no more scope than if he were taught to reckon with his fingers. It is administered after the manner of a quack medicine, or a charm of unknown ingredients, to be swallowed without further inquiry, as if to suit all manner of purposes in life. This is of the Rule of Three Direct. As for the Rule of Three Inverse, it may be, for aught many know to the contrary, the other rule set to music; while the Double Rule of Three being somewhat complicated and unintelligible, few are inclined to take it in hand.

Yet all these three rules are, in fact, no rules at all, taken in a primary sense; but they are secondary rules, founded upon another rule or elementary law of Proportion, which latter rule, or elementary law, is the simplest of the two; its principle lying, as it were, in a nutshell; it being simply as follows, namely,—that of four numbers being proportionals, the sum of the two middle terms multiplied together is equal to the sum of the two extremes multiplied together.

The plan of teaching arithmetic usually adopted in schools is the synthetical mode, which is very disadvantageous in comparison with the strictly analytical plan. Thus, in arithmetic, a system of rules is placed before the pupil, and he is told to do a certain number of sums by those rules. When the boy has succeeded in doing so, he receives praise, and believes he has done all that is necessary, whereas he has scarcely done anything. He sees not the principle on which the rule is founded. His reasoning powers have scarcely been called into exercise. memory is thus burdened with a load of rules without one connecting principle. It is a very common observation with a boy when he cannot solve a question in arithmetic, that he has forgot the rule. Had he got principles instead of rules, arithmetic would have become, as it were, a part of himself. He could no more forget these principles than he could forget his own name".

#### ARITHMETICAL PHRASEOLOGY.

COLERIDGE thus happily exposes a common Error. "It used to be said that four and five make nine. Locke says that four and five are nine. Now I say, that four and five are not nine, but that they will make nine. When I see four objects which will form a square, and five which will form a pentagon, I see that they are two different things; when combined, they will form a third different figure which we call nine. When separate they are not it, but will make it."

# THE "TALENTED."

COLERIDGE has eleverly exposed the frequent use of "that vile and barbarous vocable—talented, which is stealing out of the newspapers into the leading reviews and most respectable publications of the day. Why not shil-linged, farthinged, tenpenced, &c.? The formation of a participle passive from a noun is a licence that nothing but a very peculiar felicity can excuse. If mere convenience is to justify such attempts upon the idiom, you cannot stop till the language becomes, in the most proper sense of the word, corrupt. Most of these pieces of slang come from America."

\* Dr. Ritchie.

## "THANSPIRE."

Few words of modern introduction have had greater success than "Transpire." for it is not only in general, but even in vulgar use. Johnson's awkward substitute of "get-abroad," does not seem to express exactly the same meaning: a secret may get abroad by design, by accident, by breach of confidence; but it is said to transpire when it becomes known by small indirect circumstances - by symptoms by inferences. It is now often used in the direct sense of "get abroad," but, as appears to me, incorrectly.\*.

"FAMILY PRITIONS,"

A sense less outery has been raised against the improper ideas suggested by reading our old dramatists, and Editions of some of their works, omitting the passages objected to, have been prepared for "Family Reading," as the Family Shakspener, &c. But let us hear what his Walter Froit, one of the healthiest writers of our time, says upon this critical subject: "It is not the passages of ludicrous indelicacy that corrupt the manners of a people; it is the somets which a prurient genius like Master Little sings, virginious puericque,—it is the sentimental slang, half lewd, half methodistic, that debauches the understanding, inflames the elecping passions, and prepares the reader to give way as soon as a tempter appears."

## PRACER OF MUSIC.

Ir has been asserted, and believed extensively, that the Practice of Music is injurious to the human form: this is positively untrue, for the practice at the pianoforte, which is the most general favourite with ladies, is as favourable to the figure as any exercise that can be devised; the practice upon the barp, indeed, if not managed carefully, may under some circumstances, be injurious; but when the form has been injured by imprudent practice at the harp, those injuries may be easily cured, and, with moderate care, may always be prevented!

## AN EAR FOR MUSIC.

It is commonly thought, that to be susceptible of associations of ideas awakened by music, we must have a Musical Ear. The following quotation from the London

# Croker.

+ Bliefdrates.

Magazine, however, proves this idea to be erroneous:—
"I knew at Paris, the widow of an Irish patriot, who could not hear the 'Exile of Erin' sung, without being overpowered to such a degree, that it would have been truly alarming, had not a flood of tears come to her relief. What is wonderful, so far from having a fine musical ear, she had not even a common-place relish for music. The same effect was produced on her by the ballad of the 'Minstrel Boy.' A young friend of the writer, who has no taste for music, is similarly overpowered, even in a crowded theatre, when 'Home, Sweet Home,' is sung."

Coleridge observes: "I have no car whatever; I could not sing an air to save my life, but I have the intensest delight in music, and can detect good from bad. Naldi once remarked to me at a concert, that I did not seem much interested with a piece of Rossini's which had just been performed. I said it sounded to me like nonsense verses. But I could hardly contain myself when a thing

of Beethoven followed."

## THE JEWS -HARP.

Jews'-HARP is, probably, a corruption of Jaws'-harp, from its being placed between the jaws when played. It is also called Jews'-trump, a corruption of Jeu-trompe, a play-thing, or play-trump. A single Jew's-harp must necessarily be very incomplete; for, as Prof. C. Wheatstone has shown, its sounds mainly depend on the reciprocation of columns of air in the mouth of the performer, and these sounds are perfectly identical with the multiples of the original vibrations of the instrument. By employing two or more instruments, however, the deficiencies are supplied; and a few years since, Mr. Eulenstein used, in London, sixteen instruments of different sizes, and was thus enabled to modulate into every key, and to produce effects not only original but musical and agreeable.

#### TYROLESE MUSIC.

It is a common idea in England, that the Tyrolese are a musical people: we have Tyrolese airs and songs in abundance, and Tyrolese minstrels, who lead every one to believe from their performances, that the Tyrol is full of minstrelsy and song; but Mr. Inglis, a recent tourist, found nothing of this; he observed no symptom of musical

taste either in public performances, or amongst the people generally, who never fail in those districts of Germany, where music is really a passion, to give a thousand proofs of its existence, even to the most unobservant traveller who passes through a village. We are strangely hoaxed in these matters, and ridiculed too; for, in an American work we read of the music of the four Jews, who sung dressed at the Argyle-Rooms, as Tyrolese minstrels.

#### TRAVELLING ENGLISHMEN.

Ir is a fact deeply to be regretted, that many vulgar and half-witted Englishmen think, if they leave home with money, they can command anything; that it is mean to be civil, and beneath them to be grateful for any efforts to oblige them made by those for whose services they pay. The presumption of our countrymen is proverbial on the Continent; fortunately the exceptions are numerous, and we are spoken of as an unaccountable people, when some men of unquestionable character and fortune display examples of snavity and true gentility, which cannot be surpassed on earth: the foreigner is thus puzzled to know how to estimate our national character. It is a vulgar prejudice, that all foreigners cheat the English, and that cantion is necessary to guard against the constant attempts to over-That some such characters are met with reach them. cannot be denied; but those whose capacity is thus made to characterise a class, have often been created by the meanness and prejudices, and thoughtless extravagance, of the travellers themselves \*.

Nothing appears more ludicrous than those persons, who, after a short stay in some foreign country, come back with an opinion cut and dried upon people whom they scarcely know, and transactions, the real nature of which has been studiously concealed from them; and yet, this is what we see every day<sup>†</sup>.

#### THE FRENCH LANGUAGE IN TRAVELLING.

It is too common an Error to suppose that a good knowledge of French is sufficient for the wants of a traveller on the Continent. French will carry a traveller through the Netherlands, the southern parts of Holland, and some of the cantons of Switzerland, with perfect comfort; through

\* Brockedon.

† Earl Dudley's Letters.

the north of Italy, the other parts of Holland, and others of the Swiss cantons, without extraordinary inconvenience; and in all the cities of both Italy and Germany, it is true that some person may always be found to whom French is intelligible, if not familiar; whilst in the higher grades of society, through all Europe, a traveller who understands French will never or rarely be at fault. But more is required by the traveller than all this. French will not even obtain for him the common necessaries of the day in some parts of Germany, particularly in the east. It will do nothing for him in the Tyrol, or in the Swiss Grisons; he would starve upon it in Hungary and Turkey, and grow thin upon it in Italy, as well as in Sweden and Denmark. A traveller might as well go to Spain with a knowledge of Sanscrit as of French; for it is entirely a mistake to suppose, that the occupation of Spain by the French army, caused any general diffusion of the language. Besides, in many of those countries and districts in which a knowledge of French will procure the common needs of a traveller, it will procure nothing more; it will not command advice, still less, information. A traveller through the German cantons of Switzerland, or through any part of Germany, and many parts of Italy, although he may very probably find a French waiter in the hotel, may ask in vain for any information on the road, and will, most probably, be seated every day at a Table d'Hôte, between two persons who know nothing of French beyond Monsieur or voules vous\*.

French has, therefore, been improperly called "the algebra of tongues," from the notion of its being a sort of general medium of communication current over the greater

part of the earth.

#### TRAVELLING IN FRANCE.

A Loub outcry has been raised against the mode of Travelling in France, and French Diligences are ridiculed by stay-at-home tourists for their tardy rate; but these carriages perform their journeys at the average of six miles per hour, including stoppages. They are greatly more roomy and commodious than the English stage-coaches, and quite as well hung; and what does it signify to the traveller, who finds himself seated in a place in every way upon an equality with an English post-chaise,

if half-a-dozen others, with lighter purses, are shut up in the rotonde behind? and, so long as the coach performs the journey within the stated time, of what importance is it if the horses are rough and long-tailed, or if the harness be made of ropes? and to this add, that coach fares in England are greatly higher than they are in France. The distance from Paris to Strasburg is three hundred and forty miles, and the fare for the best place is 37 francs, or 30s. 10d.; or outside, with a cabriolet covering, 10 francs or 8s. 4d. less \* "

## HOADS ON THE CONTINENT,

It is quite a mistake to suppose that good Roads are to be found only in England. In Bavaria, in most parts of Switzerland, and the Tyrol—in many parts of the Netherlands, and throughout all Sweden,— nay, even in some parts of Spain, there are as fine roads as are to be seen in England t.

#### FRENCH WOMEN.

A FINE countenance is a rarity among the French country girls; and, although there is something very charming in the pictures and prints we have all seen, of the fêtes du village, and in the portraits of village helles with sylph-like forms, who are represented as gracing these rustic assemblies, an actual visit to a few of these scenes will quickly dissipate the romance;

#### BAVARIAN BROOM GIRLS,

Ma, Ivana, in his recent Thur, states, that from the hour he entered Bavaria, until the hour he quitted that country, he never saw one woman whose dress, still less whose brooms, recalled to mind the Broom-Girls who are seen in every street in England. He much questions whether these persons are Bavarians; the greater number are, more probably, Dutch and Belgian. Bavaria is far distant from England and Mr. Inglis saw nothing among the inhabitants to induce him to think they were driven by necessity from their native country.

## INTELLIGENOR OF THE INISH.

A NOTION is pretty general in Great Britain, that the Irish poor are exceedingly ignorant; but this is by no means the case, If elementary knowledge, or being able

<sup>\*</sup> Inglis's Tyrol. † Ibid: ‡ Ibid.

to read, write, and perform ordinary arithmetical operations, be regarded as education, it is more generally diffused in Ireland than in England. "Where in England," asks Mr. Bicheno, in his Report on the Poor Laws, "could the Ordnance Surveyors find persons among the lowest class, to calculate the sides and areas of their triangles, at a halfpenny a triangle, as they do in Ireland, and abundance of them "?"

#### FLOGGING SLAVES.

Many absurd stories are told of the conduct of drivers, and the licence allowed them by the planters in the West Indies. A driver always carries a whip; and it is alleged in Britain, that no small use of it is daily made, while he stands behind those at work in the field. Mrs. Carmichael, who resided many years in the West Indies, and visited one or other slave estate daily, declares that she never saw a whip once used, either by the driver or by any other person; neither did Mrs. Carmichael hear a negro complain of such a thing, although she used often to make inquiry. It is true that every driver carries a whip; and the use of the whip is this:—The driver always goes out first in the morning, and cracks his whip three times loudly; and as the crack is heard distinctly at the negro houses, this is a warning to go to labour †.

#### PLEASURE TOURS.

SIR Francis Head, in his delightful Bubbles, after enumerating the economical comforts at the hotel of Schlangenbad, observes:—"I have dwelt long upon these apparently trifling details, because, humble as they may sound, I conceive that they contain a very important moral. How many of our country people are always raving about the cheapness of the Continent, and how many every year break up their establishments in England to go in search of it; yet, if we had but sense, or rather courage, to live at home as economically and as rationally as princes and people of all ranks live throughout the rest of Europe, how unnecessary would be the sacrifice, and how much real happiness would be the result!"

\* M'Culloch.

<sup>†</sup> Domestic Manners and Society in the West Indies.

# "DUTCH" CLOCKS AND "TOYS."

The wooden clocks, which we erroneously call "Dutch," are nearly all made in the Black Forest; and are, in fact, German clocks. The village of Freyburg is the centre of this manufacture, whence wooden clocks are exported, "to the number, it is said, of 180,000 yearly, under the name of Dutch Clocks, not only throughout Europe, but even to America and China\*." Yet Shakspeare, with his wonted accuracy, called these clocks rightly, thus:—

"A woman that is like a German clock, Still a repairing; ever out of frame; And never going aright."

Love's Labour Lost, Act iii, scene i.

In like manner, the various "Dutch Toys" are, in reality, "Sonnenburg wares," being made in the little town of Sonnenburg, in Saxony. These wares consist of toys, dolls, boxes of various kinds, including pill-boxes; also, boot-jacks, chess-boards, and the endless variety of articles for the amusement of children, which help to fill the toyshops of every quarter of the globe.

## WHO ARE COCKNEYS?

ETYMOLOGISTS have referred the term Cockney to Cockenay, from the Latin coquinator or coquinarius, a cook, as in Chaucer's "Reve's Tale,"—

"And when this jape is told another day,
I shall be holden a daffe or cokenay."

But, we may venture to ask, why should a term of the kitchen be applied as one of contempt exclusively to Londoners? In Chaucer's line, above quoted, the term evidently implies a silly person; and, if we mistake not, the word "daffe" is used in our day as daft, or stupid. Shakspeare, too, in the Twelfth Night, employs the term in a similar sense, when the clown says, "I am afraid this great lubber world will prove a cockney;" although the expression in King Lear,—"Cry to it, nuncle, as the cockney did to the cels,"—has been interpreted in favour of cockney being originally a term of the kitchen.

Hand-book of Northern Germany, 1838.—The Editor of the Pictorial Shakspere notes, "It is most probable that the German clock was of the common kind, which we now call Dutch clocks.

Still a repairing; ever out of frame;
 And never going aright;"

Fuller, in his Worthies, gives the two following explanations of the term:-

"I. One coaks'd or cocker'd, made a wanton or nestlecock of, delicately bred and brought up, so that, when grown men or women, they can endure no hardship, nor

comport with painstaking.

"2. One utterly ignorant of husbandry and housewifery, such as is practised in the country, so that they may be persuaded anything about rural commodities; and the original thereof, and the tale of the citizen's son, who knew not the language of the cock, but called it neighing,

is commonly known."

"The tale of the cock neighing is gravely given by Minshieu in his Guide into the Tongues; and is repeated in succeeding dictionaries. Whatever be the origin, there can be no doubt that London was anciently known by the name of Cockney. Fuller says: 'It is more than four hundred years old; for, when Hugh Bigot added artificial fortifications to the natural strength of his castle at Bungay, in Suffolk, he gave out this rhyme, therein vaunting it for impregnable:—

Were I in my castle of Bungey, Upon the river of Waveney, I would ne care for the King of Cockeney:

meaning thereby King Henry the Second, then peaceably possessed of London." Tyrwhitt, in his Notes on Chaucer, ingeniously suggests that the author of these rhymes, "in calling London Cockeney might possibly allude to that imaginary country of idleness and luxury, which was anciently known by the name of Cokaigne, or Cocagne; a name which Hicks\* has shown to be derived from Coquina. Boileau, in his Satires, speaks as if the same appellation had been bestowed upon the French as upon the English metropolis, thus,—

" Paris est pour un riche un pays de Cocagne †."

"The festival of Cocagna at Naples, described by Keyslor, appears to have the same foundation ‡."

According to Fynes Moryson, the Londoners, and all

\* Gram. Anglo-Sax. p. 231.

2 Pictorial Shakspere: notes to King Lear, p. 429.

<sup>†</sup> The "Mat de Cocagne," the Mast of Cocagne, is, to this day, one of the favourite sports of the Champs Elyseés, in Paris; and is known in England as the greased pole with a shoulder of mutton at its apex; yet with us it is strictly a country sport.—ED. Pop. Errors.

within the sound of Bow-bell, are in repreach called Cockneys, and caters of luttered toasis.

All that we can arrive at is, that the term Cockney had

less reference to the kitchen than the parlour,

# WHO AND THE GIPSIES?

Gresy, corrupted from Egyptians, is a name given in England to a wandering race of people, from the notion of their having originally migrated from Egypt into Europe; but it has been proved that they were not originally from that country; their appearance, manners, and language being totally different from those of either the Copts or Fellalis.

Indeed, the Error of supposing Gipsies to be Egyptians is thus exploded by Bir Thomas Browne; "Common opinion deriveth them from Tgypt, and from thence they derive themselves, according to their own account hereof. as Munster discovered in the letters and pass which they obtained from Bigismund, the emperor; that they first came out of Lesser Egypt, that having defected from the Christian rule, and relapsed into Pagan rites, some of every family were enjoined this penames to wander about the world \*; or, as Aventinus delivereils, they presend for this vagabond course, a judgment of God upon their forefathers, who refused to entertain the Virgin Mary and Jeans, when she fled into their country,

"Which account, notwithstanding, is of little probabilility; for the general stream of writers, who impuire into their origin all insist not upon this; and are so little satisfied in their descent from Egypt, that they deduce them from several nations; Polydors Vergil accounting them originally Syrians; Philippus Bergomas fetcheth them from Chaldwa; Atheas Sylvins, from some part of Turkey; Bellonius, no further than Wallachia, and Bulgaria; nor Aventinus, than the confines of Hungaria

"That they are no Egyptians, Bellonius maketh evident; who met draves of Dipsies in Egypt, about Grand Cairo, Materea, and the villages on the banks of Nilos; who, notwithstanding, were accounted strangers unto that nation, and wanderers from foreign parts, even as they are esteemed with us,

"That they came not out of Egypt is also probable,

<sup>\*</sup> This statement of Browns to too paraticl with the fate of the Intabilies to in entertained as tester than emperture,

because their first appearance was in Germany since tne year 1400. Nor were they observed before in other parts of Europe, as is deducible from Munster, Genebrard,

Crantisius, and Ortilius.

"But that they first set out from Germany is also probable from their language, which was the Sclavonian tongue; and when they wandered afterwards into France, they were commonly called Bohemians, which name is still retained for gipsies. And, therefore, when Crantisius delivereth, they first appeared about the Baltic Sea. when Bellonius deriveth them from Bulgaria and Wallachia, and others from about Hungaria, they speak not repugnantly hereto: for the language of those nations was Sclavonian, at least some dialect thereor\*."

The name of Bohemians here mentioned by Browne, appears to have been given to Gipsies by the French, from some of them having come into France from Bohemia: others derive the word from Boem, an old French word signifying a sorcerer. (Moreri, art. Bohemi as; and Ducange's Glossary, art. Ægyptiaci.) This statement is at variance with that of Pasquier, who, in his Recherches Historiques, says they first appeared at Paris in August 1427, when they represented themselves as Christians driven out of Egypt by the Mussulmans, and the women assumed the calling of fortune-tellers. mans gave gipsies the name of Zigeuner, or wanderers: the Dutch called them Heiden, or heathens; the Danes and Swedes, Tartars. In Italy, they are called Zingari; in Turkey and the Levant, Tchingenes; in Spain, Gitanos; and in Hungary and Transylvania, where they are very numerous, they are called Pharaoh-Nepek, or Pharaoh's people. A recent traveller+ considers there is not any country in Europe where the genuine gipsy is now to be found, so thoroughly addicted to his original habits, as in Hungary, where they are called Cyguanis.

It is, however, now no longer disputed whence gipsies originally came, for they are believed to have migrated from India at the time of the great Mohammedan invasion of Timor Beg; and to have belonged in their own country to one of the lowest castes, which resemble them in their appearance and habits. Pottinger, in his Travels,

<sup>\*</sup> Vulgar Errors, b. vi. c. xiii, p. 337.

<sup>†</sup> The Rev. G. R. Gicig, in his Travels in Germany, Hungary, and Bohemia.

Marie .

saw some tribes in Beloochistan; and there is a tribe near the mouths of the Indus called *Telmganes*. The gipsies in their language, call themselves *Sind*; and their language has been found to resemble some of the dialects of India.

Gipsies exist at this moment in great numbers in all the countries of Europe, and a large portion of Asia; in parts of Africa; but not in America; and it is calculated that there are thus five millions of gipsies scattered over three quarters of the globe. In England, however, they are by no means so numerous as is commonly imagined: for the term gipsies is erroneously applied to the majority of wanderers, as travelling tinkers and musicians, makers of wooden spoons, ladles, &c. They must be considered more pretenders to astrology, as fortune tellers; for although they talk of telling "by the stars," not one in a thousand of the so-called gipsies knows one star from another. They also pretend to understand palmistry, or telling fortunes by the lines of the hand;

"As o'er my palm the silver piece she draw,
And truced the due of life with searching view,
How throbb'd my fluttering pulse with hopes and fears,
To learn the colour of my future years."

Regers's Pleasures of Memory, i. 107.

But they have mostly passed into common beggars, or taken to a trade or business for a livelihood. The laws are too stringent to allow them to live by stealing as of old, when forests and unenclosed places were less rare than at present; and, moreover, the spread of knowledge among all classes has rendered their pretended arts of little benefit to them. Still, a few "tell the ladies what their lovers hire them to tell them—and the gentlemen what the ladies request them to tell them;" but they rarely now get five or six guineas from a newly married couple, as they did of old, when also they never wanted a shilling or a meal as they passed the houses of their dupes.

Many of these facts have been condensed from a paper by J. Griscom, in the Revne Encyclopédique, 1833.

# BRITISH AND ROMAN ROADS.

Notwirestanding all that has been written upon the questio verota of the Roman Roads in Britain, many authors fall into the Error of attributing the formation of all

<sup>\*</sup> Bombuy Transactions, 1820.

the Roads in South Britain to the Romans; whereas, this portion of our island was, undoubtedly, traversed by roads made by the Britons long before the arrival of the Romans in this country. Mr. Kempe, the intelligent antiquary, adopting the opinion of Whitaker, considers the Guetheling or Watling Street, to have been a British road before the Romans made it their grand route from the point of their first invasion to the metropolis, and thence upon the site and line of the present Great North Road: "with the Britons," he observes, "it was a forest lane, or trackway; with the Romans, it became a stratum, street, or raised road, constructed according to their well-known manners \*." We entirely concur in this opinion: for it is unreasonable to suppose that a people like the Britons, acquainted with the use of carriages, (as in their thousands of war-chariots,) could have been ignorant of road making, or could have traversed the country save by roads of some description however rude. The Watling Street, which has been denominated one of the four grand Roman ways in Britain, was, doubtless, adapted, not originally constructed, by the Romans, who used it as a strategic route in war, on which account it has been too generally regarded as a military road; notwithstanding it is still one of the roads of the country. The discovery of British remains on the Watling Street is important toward the settlement of its origin. Altogether, we can scarcely believe any country, in which carriages are employed, to be long without roads. In Persia, at this day, there are no roads; but wheel carriages are unknown there.

It is worthy of remark, that from the period of the Romans quitting England, (A.D. 420,) to the middle of the last century, the roads of the country, as left by them, almost sufficed the wants of the people. "These important works of the masters of the ancient world must alike excite the admiration of the antiquary and the practical man: and their durability is best attested by extensive portions of them being used as roads to this day; whilst in vastness of design, they are exceeded only by the stupendous railway of our own scientific timest."

<sup>\*</sup> Archeologn, vol. xxvi. p. 467. † Ed. Pop. Errors; in Brayley's History of Surrey, vol. 4. p. 41.

#### TURNPIKE ROADS.

Defor appears to have escaped the Error of condemning the introduction of Turnpike Roads in England; for, writing of them in his Tour, in 1714, he says: "This custom prevailing, 'tis more than probable that our posterity may see the roads all over England restored in their time to such perfection, that travelling and carriage of goods will be more easy, both to man and horse, than ever it was since the Romans lost this island."

#### CÆSAR IN BRITAIN.

THE majority of our popular histories of England commence with the invasion of Julius Cæsar, just as if he had been the creator of the country, instead of its benefactor; for, assuredly, the Roman dominion in Britain must have been by far the most brilliant period of its early history, as the remains of Roman magnificence attest to our own times. This educational Error ought promptly to be corrected: for, although Cæsar may be regarded as one of the earliest writers by whom any authentic particulars respecting our island are given, it must be recollected that he could speak from personal knowledge of none but the tribes that dwelt near the mouth of the Thames, and that, consequently, his information respecting the remainder of the island must have been furnished by others. Again, he sought to justify his invasion; and, like other Roman authors, to justify Roman Hence, he may plunder, he misrepresented the victims. have termed the poor Britons barbari with as little discrimination as the term savages has been used in our day; and his distinctions of people may have been not more exact than our designation of Indians applied to the native Americans.

It is not, therefore, surprising to find innumerable spots throughout the country, which are the imperishable natural features of the district, associated with Casar's dominion of Britain. In the south of England, many such instances occur.

In like manner, Cæsar's name has been associated with many structures of date far subsequent to his time. Tradition assigns to Julius Cæsar the erection of a fortress on the site now occupied by the Tower of London, and Leland, Pennant, and others, adopt this opinion; "but it is certain that Casar did not remain long enough in this part of the island to have erected any permanent edifice of defence; and had such been the case, so remarkable a work would not have passed unnoticed in his Commentaries." The non-existence of such a structure after the extinction of the imperial power in Britain, may be presumed, from the silence of the writer of the Saxon Chronicle, and other early annalists, who, although they make frequent allusion to the city, port, and walls of London, during the wars of the Danes and Saxons, do not mention the Tower, or any fortress in that situation, previous to the time of the Norman invasion †."

Yet "the White Tower," as the Keep is called, has been often denominated "Cæsar's Tower;" and the hypothesis is supposed to have been confirmed by Fitz-Stephens, a monkish historian of the period of Henry II., who states that "the city of London hath in the east a very great and most strong Palatine Tower, whose turrets and walls do rise from a deep foundation, the mortar thereof being tempered with the blood of beasts ‡." The concluding words of this statement we take to be as tenable as its

commencement.

#### FIDDLERS, -CATGUT.

FIDDLER does not signify what we now understand by the word,—player on the violin. Thus, in Fletcher's Knight of the Burning Pestle—

"They say it is death for these fiddlers to tune their rebecks."

And, in Shakspeare's Taming of the Shrew-

" call me fiddler!"

which is applied to a lutanist. The violin, according to Anthony Wood, seems not to have been known in England till the time of Charles I. It appears to have been borrowed from the old Welsh instrument called a cruth §;

\* This Error of referring to Cesar the things which are not Cesar's, is thus quaintly noticed by Dulaure in his History of Paris: "Every old building, the origin of which is buried in obscurity, is referred to Cesar or the devil."

† Memoirs of the Tower of London, by J. Britton and E. W. Brayley, pp. 2, 3.

1 Ainsworth's Tower of Lendon, p. 130.

§ Romanusque lyrà plaudat tibi, barbarus harpà, Græcus Achilliacà, Crotta Britanna canat."—Venantius,

"Mervinia for her hills, and for her matchless crouds."

Drayton's Polyoibion, song the 9th,

which is not, however, tuned in the same manner as a violin. As for the rebeck, Mr. Percy, in the introduction to his collection of ancient ballads, informs us that it was

a violin with only three strings.

"It is remarkable, also, that the word crwdyr is supposed by Richards, in his Welsh Dictionary, to signify a vagabond. I conclude, however, it must also be used for the player on this instrument, who is, in Butler's Hudibras, styled crowdero\*!

We suspect rather that the violin was introduced into this country from France; for Charles II. kept a band of twenty-four violins, in imitation of the French king; and in this reign the violin first came into general use in

England.

The idea that the viscera of the cat are employed for violin strings is altogether an Error. In the old copy of Shakspeare's ('umbeline occurs, "horse-hairs and calves'which Rowe changed to cats'-guts; and he has Upon which the editor of the since been followed. Pictorial Shakspere notes: "We believe that there is not an example of it in any old author. In Bacon's Natural History we have a passage, in which gut, a musical string made of animal substance, is thus spoken of: 'A viol should have a lay of wire-strings below, close to the belly, and the strings of guts mounted upon a bridge.' Why not, then, calves' guts as well as cals' guts? We know not how the name catgut arose; for cuts have as little to do with the production of such strings as mice have." To this fancied association of the cat and strings of the violin, some imaginative persons have referred the sign of the Cat and the Fiddle, which so puzzled the Spectator. Another attributes it to a zealous Protestant innkeeper, who having survived the iron yoke of Mary, in the days of her successor, likened himself to the old Roman, and wrote over his door, "Illostelle du Caton Fidelle," after corrupted to the Cat and Fiddle. A third etymologist traces it to the custom of a cat being shown about the streets, dancing to a fiddle; and he refers to an old book entitled Twists and Turns about the Streets of London, wherein is described "a poor, half-naked boy. strumming on his violin, while another little urchin was, with the help of a whip, making two poor starved cats go through numerous feats of agility."

<sup>\*</sup> Barrington, On the more Ancient Statutes, 4 Hen. IV. p. 339.

## SIGNATURE OF THE CROSS.

THE mark which persons who are unable to write are required to make, instead of their signature, is in the form of a cross (+); and this practice having formerly been followed by kings and nobles, is constantly referred to as an instance of the deplorable ignorance of ancient times. This signature is not, however, invariably a proof of such ignorance: anciently, the use of this mark was not confined to illiterate persons; for, amongst the Saxons the mark of the cross, as an attestation of the good faith of the person signing, was required to be attached to the signature of those who could write, as well as to stand in the place of the signature of those who could not write \*. In those times, if a man could write, or even read, his knowledge was considered proof presumptive that he was in holy orders. The word clericus, or clerk, was synonymous with penman; and the laity, or people who were not clerks, did not feel any urgent necessity for the use of letters.

The ancient use of the cross was, therefore, universal; alike by those who could and those who could not write; it was, indeed, the symbol of an eath, from its hely associations, and, generally, the mark. On this account, the ingenious editor of the Pictorial Shakspere explains the expression of "God save the mark," as a form of ejaculation approaching to the character of an eath. This phrase occurs three or more times in the plays of Shakspeare; but hitherto it had been left by the commentators in its original obscurity.

#### THE ALEXANDRIAN LIBRARY.

This celebrated collection is supposed to have been the largest collection which was ever brought together before the invention of printing, and is stated to have amounted to 700,000 volumes. a number which has been often doubted. It is not, however, so generally known that the rolls, (volumina,) here spoken of, contained far less than a printed volume: for instance, the Metamorphoses of Ovid, in fifteen books, would make fifteen volumes; and one Didymus is said by Atheneus to have written 3,500 volumes. This consideration will bring the number assigned, at least, within the bounds of credibility.

<sup>\*</sup> See Blackstone's Commentaries.
† See Illustrations of Romeo and Juliet, p. 56: Pictorial Shakspere.

#### THE FIRST ENGLISH NEWSPAPER.

"THE earliest English Newspaper" was, until very lately, believed to be that contained in the collection in the British Museum, and entitled The English Mercurie, which, by authority, " was printed at London in 1558, and gave an account of the Spanish Armada, in the British Channel." This statement, by Chalmers, in his Life of Ruddiman, was put forth in 1794, and has been repeated by all who have since illustrated the history of English Literature, and copied into encyclopædias, magazines, class-books for schools, and innumerable volumes of anecdotes, and other light reading. Few persons suspected the genuineness of this account, and fewer still were disposed to investigate the matter; till an accidental reference to the accredited newspaper proved the whole story to be an imposition of the grossest nature; and the Error, which had passed current for nearly half a century, has thus been

exploded.

The details of the discovery are at once amusing and instructive, and must afford a valuable lesson to the worshippers of the rarities of literature. It appears that on Nov. 4, 1839, Mr. Watts, of the British Museum, having occasion to refer to The English Mercurie upon some point respecting the Spanish Armada, and the book being brought, he had not examined it two minutes before he was forced to conclude the whole to be a forgery; and "the unaccountably successful imposition of fifty years was shattered to fragments in five minutes." Passing over several minor circumstances, the evidence of the forgery rests principally on the following points:-- 1. The type employed is not that of the period, but that of a century ago; the distinction between the u, v, and i, and j, which are shown in The Mercurie, being utterly unknown to the printers of the sixteenth century. 2. The orthography is almost always at variance with an accredited work entitled A Pack of Spanish Lies, printed in 1588. In this work, for example, is spelt "Arke Royalle," but in The Mercurie it is "Ark Royal." 3. The style of the composition is not of the date to which it pretends. Words, phrases, and modes of expression are made use of, which were either unknown at the time, or were employed in a sense which did not become familiar to English ears until a period much later than the date of The Mercurie. 4. Mr. Watts is of

opinion that an article of news in The Mercurie of July 23rd, 1588, purporting to give an account, written by the lord-admiral, of events of which we now possess a most minute relation, could only be the work of a newspaper manufacturer copying from a confused statement of the same events by Camden. 5. There is a hiatus of nearly four months between Nos. 53 and 54 of The Mercurie, although four of the numbers were published within eight days. 6. The manuscript copies of The Mercurie, which are bound up with the printed copies, contain "the most convincing, the most irrefragable evidence that the whole affair is a fraud." The hand-writing of the manuscript is as modern as the type of the printed copies, and the spelling is also modern; while in the printed copies the printer has endeavoured to give the spelling "the proper antique flavour," and has not succeeded very well. Moreover, the paper bears the water-mark of the royal arms, with the initials "G. R.".

The question, "Who was the forger?" remains to be answered. Mr. Watts thinks that the printed and manuscript copies were got up for the purpose of imposition, that the attempt was detected, and that the whole of the papers were preserved as a memorial of the occurrence. If this be the case, is it not singular that no record of the matter has been made? if the papers were interesting enough for preservation in the British Museum, surely some account of the transaction would have been preserved. We rather incline to the belief that the forgery had never before been detected, and had been inadvertently admitted as genuine. The Mercurie is in the collection of Dr. Birch, by whom it was bequeathed to the British Museum in 1766; and, in all probability, the Doctor had been imposed on by some accomplished literary forger.

Even had this *Mercurie* been genuine, it would not have been so great a rarity as represented; for there has lately been added to the collection in the British Museum, a Venetian Gazette of the year 1570, detailing the defeat by the Venetians, of the Turkish Armada in the mouth of the Gulf of Lepanto.

<sup>\*</sup> These details have been abridged from a Letter, addressed by Mr. Watts to Mr. Panizzi, of the British Museum. It is but justice to add, that the genuineness of the English Mercuric had been previously much questioned in the Penny Cyclopedia, art. Nowspapers.

<sup>†</sup> See Literary World, vol. ii. p. 259.

## ORIGIN OF NEWSPAPERS.

The Newspaper was long stated to have originated in Venice, in 1003, and to have been called Gazetta, whence our appellation, Gazette. This was, however, an Error; for the Venetian newspaper was a written sheet, for hearing which read, each person paid a gazetta, a coin no longer in use. The paper was, in fact, called "A Particular Relation," a title borne by many English newspapers of the seventeenth century.

## THE FIRST MAGAZINE.

Appended to Mr. Watts's account of the forged English Mercure, just quoted, is the exposition of an Error which has obtained almost as extensive a currency as that concerning the origin of newspapers. "The Gentamor's Ma az m;" he observes, "unaccountably passes for the first periodical of that description, while, in fact, it was preceded nearly forty years by the Gentleman's J. m n of Motteux, a work much more closely resembling our modern magazines, and from which Sylvanus Urban borrowed part of his title and part of his motto; and while on the first page of the first numbers of the Gentleman's Magazine itself, it is stated that it contains 'more than any book of the kend and price.'"

#### SABBATH AND SUNDAY.

These words are so often erroneously applied, and the differences as to the observance of Sunday are so imperfectly understood, that the following explanation will be acceptable: - "The founders of the English reformation, after abolishing most of the festivals kept before that time, had made little or no change as to the mode of observance of those they retained. Sundays and holidays stood much upon the same footing as days upon which no work, except for good cause, was to be performed; and the service of the church was to be attended, and any lawful annisement might be included in. A just distinction, however, soon grew up; an industrious people could spare time for very few holidays; and the more serupulous

<sup>\*</sup> See Literary World, vol. ii, p. 250.

party, while they slighted the church-festivals as of human appointment, prescribed a strict observance of the Lord's day. But, it was not until about 1595, that they began to place it very nearly on the footing of the Jewish sabbath, interdicting not only the slightest action of worldly business, but even every sort of pastime and recreation; a system which, once promulgated, soon gained ground, as suiting their atrabilious humour, and affording a new theme of censure on the vices of the great\*. Those who opposed them on the high-church side, not only derided the extravagance of the Sabbatarians, as the others were called, but pretended that the commandment having been confined to the Hebrews, the modern observance of the first day of the week as a season of rest and devotion was an ecclesiastical institution, and in no degree more venerable than that of the festivals or the season of Lent, which the puritans stubbornly despised. Such a controversy might well have been left to the usual weapons. James I., or some of the bishops to whom he listened, bethought themselves that this might serve as a test of puritan ministers. He published accordingly a declaration to be read in churches, permitting all lawful recreations on Sunday after divine service, such as dancing, archery, May-games, morrice-dances, and other usual sports; but with a prohibition of bear-baiting, and other unlawful games. No recusant, nor any one who had not attended the church-service, was entitled to this privilege; which might consequently be regarded as a bounty on devotion. The severe puritan saw it in no such point of view. his cynical temper, May-games and morrice-dances were hardly tolerable on six days of the week; and they were now recommended for the seventh. And this impious licence was to be promulgated in the church itself. It was, indeed, difficult to explain so unnecessary an insult on the precise clergy, but by supposing an intention to harass those who should refuse compliance." This declaration was not, however, enforced until the following reign.

"The house of commons displayed their attachment to

<sup>\*</sup> The first of these Sabbatarians was a Dr. Bound, whose sermon was suppressed by Whitgift's orders. But, some years before, one of Martin Mar-prelate's charges against Ayliner was playing at bowls on Sundays: and the word Sabbath, as applied to that day, may be found occasionally under Elizabeth, though by no means so usual as afterwards.

the puritan maxims, or their dislike of the prelatical clergy, by bringing in bills to enforce a greater strictness in this respect. A circumstance that occurred in the seasion of 1021, will serve to prove their fanatical violence. A bill having been brought in ' for the better observance of the Sabbath, usually called Sunday, one Mr. Shepherd. sneering at the puritans, remarked that, as Saturday was dies Suman, this might be entitled a bill for the observance of Saturday, commonly called Sunday. This witticism brought on his head the wrath of that dangerous assembly. Yet, when the upper house sent down their bill with 'the Lord's day' substituted for 'the Sabbath,' observing, 'that people do now much incline to words of Judaism, the commons took no exception. The use of the word Sabbath, instead of Sunday, became in that age a distinctive mark of the puritan party"."

## OBSERVANCE OF LENT.

THE Lent Fast was called by the Latins, Quadragesima, but whether on account of its being originally a fast of forty days, or only forty hours, has been much disputed. Bingham inclines to the opinion that, at first, it was only forty hours. St Jerome, St. Leo. St. Augustin, and others, consider this fast to have been first instituted by the apostles: by others it is asserted not to have been known in the earlier ages of the Christian church.

Lent was first observed in England by our Saxon ancestors; whence its name, Lencten, implying Spring, the season when the day increases in length, about the commencement of which this fast usually falls. The observance of abstinence at Lent, in this country, however, appears to have been more a matter of secular moment than religious mortification; so that altogether, the regulations after the Reformation enacted abstinence in as strict a manner, though not ostensibly on the same grounds, as it is enjoined in the church of Rome, A statute of 1548 (2 and 3 Edward VI. c. 19) runs thus-" in the time commonly called Lent- the King's Majesty considering that due and godly abstinence is a mean to virtue, and to subdue men's bodies to their soul and spirit, and considering also especially that fishers and men using the trade of fishing in the sea may thereby be set to work, and that by eating of fish

<sup>\*</sup> Hallam, Constitutional Hist. England. vol. i. pp. 542-547, abridged

onuch flesh will be saved and increased," enacts, after repealing all existing laws on the subject, that such as eat flesh at the forbidden season shall incur a penalty of ten shillings, or ten days' imprisonment without flesh, and a double

penalty for the second offence,

The next statute relating to abstinence is one (5th Eliz. c. 5) entirely for the increase of the fishery. It enacts, § 15, &c. that no one, unless having a licence, shall eat flesh on fish-days, or on Wednesdays, now made an additional fish-day, under a penalty of 3h, or three months' imprisonment. Except that every one having three dishes of seafish at his table, might have one of flesh also. But, "because no manner of person shall misjudge of the intent of this statute," it is enacted that whosoever shall notify that any eating of fish or forbearing of flesh mentioned therein is of any necessity for the saving of the soul of man, or that it is the service of God, otherwise than as other politic laws are and be; that then such persons shall be punished as spreaders of false news: § 39 and 40.

Many proclamations appear to have been issued in order to enforce an observance so little congenial to the propensities of Englishmen. One of those in the first year of Edward was before any statute; and its very words respecting the indifference of meats in a religious sense. were adopted by the legislature next year". In one of Elizabeth's, A.D. 1572, as in the statute of Edward, the political motives of the prohibition seem, in some measure, associated with the superstition it disclaims; for eating in the season of Lent is called "licentious and carnal disorder, in contempt of God and man, and only to the satisfaction of devilish and carnal appetites;" and butchers, &c. "ministering to such foul lust of the flesh," were severely mulctedt. Again, in 1579‡, and, as far as Mr. Hallamo has observed, in all of a later date, the encouragement of the navy and fishery is set forth as their sole ground. This compulsory observance of Lent was continued long after the Reformation; although, from the beginning, the system was only compulsory on the poor; licences for eating flesh and white meats during Lent, being easily obtainable by payment.

<sup>\*</sup> Strype's Eccles. Memor. ii 81. † Strype's Annals, ii. 108.

The monstrous inconsistency of the excesses of the Carnival of Shrovetide, making sin a preparation for a state of penance, by the agents plunging themselves into disorders at the very time they pretended to be disposing themselves for a perfect conversion, did not escape the wit of Selden, who quaintly says, "What the Church debars us one day, she gives us leave to take out in another: first, we fast, and then we feast; first, there is a Carnival, and then a Lent."

Howell, in one of his amusing Letters, dated Ash-Wednesday, 1654, throws additional light upon this secular observance of Lent, as follows:-" Now that Lent and Spring do make their approach, in my opinion, fasting would conduce much to the advantage of the soul and body; though our second institution of observing Lent aimed at civil respects, as to preserve the brood of cattle, and advance the profession of fishermen, yet it concurs with the first institution, viz. a pure spiritual end, which was to subdue the flesh, and that being brought under, our other two spiritual enemies, the world and the devil, are the sooner overcome. The naturalists observe, that morning spittle kills dragons; so fasting helps to destroy the devil, provided it be accompanied with other acts of devotion: to fast for one day only, from about 9 in the morning till four in the afternoon, is but a mock fast:"-or, in his lame verse:

"This is not to keep Lent aright,
But play the juggling hypocrite:
He truly Lent observes, who makes the inward man
To fast, as well as make the outward feed on bran."

# " MARRY !"

In popish times, the term "Marry" was a mode of swearing by the Virgin Mary; q.d. by Mary. So also, "marrow-bones," for the knees: "I'll bring him down upon his marrow-bones," i. v. I'll make him bend his knees as he does to the Virgin Mary+.

## BELLS IN CHURCHES.

Spelman says, that Bells were first introduced into Churches about A.D. 400, by Paulinus, bishop of Nola, and were thence called Nolæ. Bingham, (Works, vol. i. p. 16,)

<sup>\*</sup> Table Talk. | Ellis's Notes to Brand's Popular Antiquities.

considers this a vulgar error. Bentham, (Hist. Ely, Supp. by Stephens n. p. 150.) remarks, that the earliest use of campanæ (bells) was about 605, when Pope Sabinianus ordered some to be fixed in churches. Bede mentions them

as early as 608\*.

The reason is not generally known, but Church Bells have a sensible effect on the ear, according as they are more or less perfectly tuned. No set of bells is ever cast quite in tune; in general, the third is too flat, and the fourth is too sharp, the effect of which is doubly discordant. The only certain mode of having a peal perfectly harmonious, is to tune the bells by a monochord divided into intervals. A peal of bells can be thus brought to musical perfection; and any one, without knowing the reason, would perceive the sweet effect. This mode of after tuning is never practised; and therefore, a peal gives all its discord often for centuries, as the bells happen to be cast.

Webster libelled the most exhilarating and the most

affecting of all measured sounds, when he said

"Those flattering bells have all One sound, at weddings and at funerals."

### SILVER IN BELLS.

A prejudice has long existed, that the old church bells contained a smaller or larger portion of silver; and the large bell of Rouen cathedral was, from its beautiful sounds, called the Silver Bell. M. Girardin, professor of chemistry, has, however, by a careful analysis, ascertained that the Rouen bell does not contain any silver. One hundred parts of it by weight contain

Copper	•		71
Brass			26
Zine			1 . 80
Iron			1 . 20

Modern French bells differ little from the above, being composed of

# "GOTHIC" ARCHITECTURE.

The word "Gothic" is very generally used to contradistinguish the buildings of the middle ages from those of ancient Greece and Italy; but the term is scarcely ever

<sup>\*</sup> Britton's Architectural Dictionary.

used with any precise or definite meaning. It is frequently applied by the authors of popular works on architecture, to the Norman or semi-circular arched, to the first pointed or lancet, and to all the other varieties of ecclesiastical buildings of the middle ages. John Evelyn and Sir Christopher Wren applied it to the pointed as well as semi-circular arched building, though Wren used the word Saracenic in reference to pointed architecture, the prejudice t and absurd notions of these writers, we need only notice their language on the subject of the pointed style Evelyn says; " Cothic architecture is a congestion of heavy, dark, melancholy, monkish piles." Wren's language is equally abourd and inappropriate . he calls the English cathedrals and churches "mountains of stone; vast, gigantic buildings; but not worthy the name of architecture. This," he adds, " we now call the Gothie manner; so the Italians called what was not after the Roman style " Later architects and authors have regarded the architecture in question with very different feelings, and it is now duly appreciated; though there is still much discrepancy of opinion and confusion of ideas, even among the best informed, as to a proper and judicious nomencla-The term "Gothic," it must be admitted, is calculated to mislead and confound both the student and the veteran architect.

## HAXON ARCHITECTURE.

There is a very common Error of attributing the erection of buildings with massive columns and semi-circular arches to the Saxons. "According to the best authorities, there are very few specimens of architecture now in existence in this country which can properly be called Saxon, that is, of a date anterior to the Conquest, and not of Roman origin; and those few are of the rudest and most inferior description. Saxon, therefore, as far as the architecture of this country is concerned, is an improper term?."

#### DIFFICULT BREATHING IN ASCENDING MOUNTAINS.

The sensations experienced in reaching a high mountain summit are commonly attributed to rarefaction of the air breathed, though better observation has proved them to be chiefly owing to the expenditure of bodily

\* Britton's Architectural Dictionary.

† Mr. Hoskins, in Encyclopædia Brit., 7th edit.

power that has been incurred by muscular exertion, hurried breathing, and quickened action of the heart. These sensations in great part, subside when the immediate causes of lassitude and disorder are removed. Or, if we yet need explanation of that singular farigue in the limbs, which is alleged to occur when walking in elevated regions, even without the toil of ascent, we may, perhaps, find it in Humboldt, who conjectures that this sensation may depend on the mechanism of the joints and equipoi-e of the bones being disturbed by the low atmospheric pressure; and the experiments of the two Webers, recently made at his suggestion, have afforded a singular confirmation of this idea.\*

The observations in ascent by balloons, now become so familiar to us, show, even unexpectedly in degree, the extent to which the body can undergo the most sudden changes of atmospheric weight, without any obvious effect, where the health is unimpaired, and no causes of bodily fatigue are conjoined. Mr. Green, who has now ascended in balloons with more than four hundred persons, under every possible variation of height, rapidity, and state of atmosphere at the time, states that none of these individuals were sensibly affected, otherwise than by the sudden change of temperature, and by a noise in the ears, compared by some to very distant thunder; the latter sensation being far less distressing than that produced by descent in a diving-bell. He has never felt his own respiration hurried or oppressed, except when exerting himself in the management of the balloon, or when suddenly passing into a very cold atmosphere. In no instance have his companions experienced vertigo, or sickness; thus rendering doubtful one of the statements current on this subject; for the aeronants breathed with the utmost ease, and as freely as when walking on the earth's surface.

In the great experiment made by Mr. Green and Mr. Rush, in September 1838, in ascending to the height of 27,136 feet, or  $5\frac{1}{7}$  miles above the level of the sea, (the greatest elevation ever reached by man, and very exactly

<sup>\*</sup> Poggendorf's Annalen für 1837. No. 1. These experiments, made upon the hip-joint after the two bones had been detached by cutting the capsular membrane through, show that the pressure of air will still retain the head of the thigh-bone firmly in the socket, from which it sinks down when the air is artificially rarefied underneath: the joint thus becoming a sort of air-pump, in which the head of the thigh-bone acts as a piston.

corresponding with the highest ascertained summit of the Himalsya mountains,) the barometer fell from 33° 50° to 11°, the thermometer from 61° to 5°. The first 11,000 feet were passed through in about seven minutes. Yet, under these remarkable circumstances, the aeronauts suffered no inconvenience but from cold \*.

#### CHOICE OF SPECTACLES.

The oval Spectacles now made are very superior to the larger sized ones formerly employed, which, indeed, were constructed upon an erroneous principle. For, when the eyes are not directed near the centre of the spectacle glasses, the object appears confused, more of the glass being employed at one view than a portion equal to the size of the pupil of the eye; this on an average is the eighth of an inch in diameter; but, as it would be tedious always to look through a small aperture, the glasses zee of a sufficient size to admit of a moderate degree of motion; and, as we require a greater latitude horizontally than vertically, their figure is of an oval form.

## WHAT ARE TEARS?

THE distinction of Tears shed from various causes are but imperfectly understood. Let us, therefore, hear Mr. Abernethy on the subject : - " What are the tears? Now, anybody making such an inquiry would really surprise a person who had not reflected on the subject. What are the tears? Does not any body know what the tears are? One would think that a person who instituted such an inquiry had never seen a blubbering boy with the salt water running down his checks. Aye, but are these tears? Those are tears to be sure, such as are shed from irritation or from sorrow, but they are not the common tears. They inflame the eye, they exceriate the very cheek down which they run. What are those salt-water tears? O, they are the product of the lacrymal gland, which is lodged in a slight fossa of the orbitary part of the on frontis. It is the property of these glands -the salivary glands-to secrete occasionally, and not continually, and to secrete profusely at times. This is the source of the salt water which is shed for our grief, or when anything irritates the surface of the eye; but it is a kind of salt

<sup>\*</sup> Abridged from Dr. Hotland's Medical Notes.

water not calculated for lubricating the surface of the eye; that you may be assured of. What are the common tears? Unquestionably, a very lubricous fluid to facilitate the motion of the eyelid upon the front of the eyeball,—a mucilaginous liquor—a thin mucilage—secreted from the whole surface of the concavity. That it is mucilage is manifest; for, where it is abundant in quantity, and perhaps having a greater abundance than common, in consequence of inflammation, does it not gum the eyelids together? I say it is a mucilaginous secretion, excellently calculated for preserving the front of the eye, and for preserving it moist, so that it may be transparent."

# V.—LAWS AND CUSTOMS.

## EXEMPTIONS BY MARRIAGE.

FORMERLY there was entertained a vulgar notion, that a woman's marrying a man under the gallows would save him from the execution. This, probably, arose from a wife having brought an appeal against the murderer of her husband, who afterwards, repenting of the provocation of her lover, not only forgave the offence, but was willing to marry the appellee.

In like manner, it was imagined, that when a man intended to marry a woman who was in debt, if he took her from the hands of the priest clothed only in her shift, he would not be liable to her engagements. Another version of this Error is, that the woman might clear herself of all debts by crossing the street in which she

lived, only wearing her shift.

It has often been believed that second-cousins may not

marry, though first-cousins may

There is a vile custom among the most profligate of the lower classes, which some of them have magnified into law. It is that of selling wives. A brute of a husband, wanting to get rid of his wife, takes her into the market on some fair or market day, with a rope round her neck, sets her up to be bid for by the surrounding clowns, and the bargain is completed for half-a-crown or five shillings. To foreigners, this proceeding naturally enough seems monstrous; and they scoff at our affectation of morality. The truth is, that this practice exists but among the lowest classes—the dregs of society; that it does not constitute a divorce; and that it is directly punishable by law; the object of the whole shameless ceremony being merely an acknowledgment that the husband surrenders all idea, or right, of taking an action against the man who lives with the separated wife.

It is also a very prevalent Error, that those who are

born at sea belong to Stepney parish.

#### FLEET MARRIAGES.

Before the passing of the Marriage Act, in 1754, a common notion prevailed, that the solemnization of a marriage by a person in holy orders rendered it sacred and indisso-This erroneous idea, doubtless, arose from the fact of marriage by civil contract being valid in some cases, whilst in others its performance in the church was indispensable. Hence arose the scandals and indecencies of the notorious Fleet Marriages, which were performed in the Fleet prison, by a set of drunken, swearing parsons, with their myrmidons who wore black coats, and pretended to be clerks and registers to the Fleet. way, from October 1704 to February 1705, there were performed in the Fleet 2594 marriages, without either licence or certificate of banns; and the nefarious traffic continued until the passing of Lord Chancellor Hardwicke's Act in 1754, abolishing all clandestine and irregular marriages.

## GRETNA GREEN MARRIAGES.

In Scotland, nothing further is necessary to constitute a man and woman husband and wife, than a declaration of consent by the parties before witnesses, or even such a declaration in writing, without any witnesses; a marriage which is considered binding in all respects. Still, a marriage in Scotland, not celebrated by a clergyman, (with the exception of the notorious Gretna Green marriages\*,) is rarely or never heard of; a result of the nearly universal feeling in favour of a religious celebration of the

<sup>\*</sup> And those performed at Lamberton Toll-bar, about a mile north of Berwick-upon-Tweed.

contract, and which would look upon the neglect of that solemnity as disreputable. The plain state of the case is — what the Scottish people have eschewed as evil, the more lax English have availed themselves of to ward off the rigour of their own law; and matches so made appear to have been almost exclusively "stolen" or "runaway," and the parties all English. The trade was established by a tobacconist, not a blacksmith, as is generally believed; and the name of "Gretna Green" arose from his residence on a common or green between Graitnay and Springfield, to which latter village he removed in 1791. In 1815, the number of marriages celebrated at Gretna was stated, in Brewster's Edinburgh Encyclopædia, at sixty-five, which produced about 1,000l., at the rate of fifteen guineas each.

## ROYAL MARRIAGES.

THERE is a common but erroneous idea abroad that the Royal Marriage Act prevents the marriage of the members of the royal family with English women. The act provides that no descendant of George the Second shall marry any subject without the consent of the reigning sovereign; but, if that consent be given, the marriage will be valid. By the common law of England, independently of the marriage act, the reigning sovereign has always the right to control the marriages of his children and heirs, and of the heir presumptive to the throne. The royal marriage act only provides that no descendant of George the Second shall have a right to marry without that consent.

## THE WEDDING-RING FINGER.

The origin of wearing the Wedding-ring upon the fourth finger of the left hand has been much disputed. Sir Thomas Browne appropriates a chapter to this inquiry, observing: "An opinion there is, which magnifies the fourth finger of the left hand, presuming therein a cordial relation, that a particular vessel, nerve, vein, or artery, is conferred thereto from the heart; and therefore, that especially hath the honour to bear our rings." Sir Thomas then refers to this practice as common not only in Christian but heathen nuptial-contracts; but does not consider the reasons alleged sufficient to establish the pre-eminency this finger. He then observes, that it was not customas "Sir John Campbell, Attorney-General."

mercanic Panal

with the ancients to wear their rings either on the left hand or finger: thus, in Jeremiah, it is said: "though Coniah, the son of Joachim, king of Judah, were the signet on my right hand, yet would I pluck thee thence." Pliny states that in the portraits of the gods the rings were worn on the finger next the thumb; that the Romans wore them on the middle finger, as the ancient Gauls and Britons; and some upon the fore-finger, as is deducible from Julius Pollux, who names that ring Corionos. Since, therefore, the practice differs in various countries, we can scarcely refer it to any natural cause, which would alike affect all.

Sir Thomas next examines the anatomical details of nerve, vein, and artery; adding that inspection does not "confirm a particular vessel in this finger," and that "these propagations being communicated unto both hands, we have no greater reason to wear our rings on the left

than on the right."

"Now that which begat or promoted the common opinion, was the common conceit that the heart was seated on the left side," which is likewise an Error. speaking, it is as nearly as possible in the middle of the chest; and if a line were drawn down the centre of the breast-bone, to divide the heart into two portions, we should find rather the larger half on the right side. point is directed towards the left side, close to the fifth rib; and the reason we attribute its position to the left side, rather than the right, is this, that we can more readily feel the pulsation on this side than we can on the other, because the last of the four great cavities of the heart, namely, the left ventricle, is placed on the left side; from this the blood is forced over the whole system, and we readily feel its pumping action through the ribs. Notwithstanding this specimen of Error justified by Error, marriage being an affair of the heart, there may be more in the poetical association of the left hand and the heart than lir Thomas seems willing to allow.

The most reasonable inference as to the origin of wearing the ring on the left hand, however, appears to be a natter of convenience. Macrobius, a Latin author of the lifth century, says: "At first, it was both free and usual to wear rings on either hand; but after that luxury increased, when precious gens and rich insculptures were

added, the custom of wearing them on the right hand was translated unto the left; for that hand being less employed, thereby they were best preserved. And for the same reason they placed them on this finger, for the thumb is too active a finger, and is too commonly employed with either of the rest; the index or fore-finger was too naked whereto to commit their pretiosities, and hath the tuition of the thumb scarce unto the second joint; the middle and little finger they rejected as extremes, and too big or too little for their rings; and of all chose out the fourth, as being least used of any, as being guarded on either side, and having in most this peculiar condition, that it cannot be extended alone and by itself, but will be accompanied by some finger on either side."

## BURIAL OF THE DEAD.

WE read much of the ornamented cemeteries, and superior respect paid to tombs, on the Continent; but, however prejudiced tourists may interest the reader on this subject. sober truth maintains, that, in no country are the dead more hallowed than in Great Britain. In France, where graves and tombs are decked with flowers, the stealing of bodies for anatomical purposes is connived at by the priests, so as to justify the supposition of a recent tourist,—that " the laws had an eye to the resurrection men, when they ordained, that all persons should be interred, under a heavy penalty, within twenty-four hours after death. givers were anxious that science should have them fresh and fresh; though, of course, the health of the survivors is the pretence." So abundantly is science thus supplied, that the price for unopened subjects in the Paris hospitals is five francs, or 4s. 2d.; and three francs, or 2s. 6d., for opened ones. Many of the English, who have the misfortune to lose friends in France, being aware of the small respect in which the grave is held there, contrive to have their remains conveyed over to their own country; and the methods to which they have recourse are various.

#### RIGHT OF WAY AND PUNERALS.

An opinion is prevalent in many parts of this country, that whatever may be the path of a Funeral towards the place of burial, a public Right of Way along such path

<sup>\*</sup> Vulgar Errors, b. iv. c. iv. pp. 217-219.

A few years since, an action was brought for the purpose of contesting a claim of this nature; but the judge declaring that it was founded upon a foolish Error, the opinion of a jury was not allowed to be given upon it. The Error is of some antiquity, as the following occurrence in the fourteenth century proves. A chaplain of the Bishop of Exeter died, and ought, according to a rule still observed, to have been buried in the parish of Farringdon. The bishop directed the interment to take place in the adjoining parish of Cliff Tomeson. One Tomeson, hearing that the body of the chaplain was about to be brought over his ground, and that, as the chronicle states, a lick-way would be made through them, assembled his servants, and attempted to stop its progress as it was carried over a bridge. A scuffle ensued, and the body was thrown into the water. The lick-way was not made; but the Bishop of Exeter amply revenged himself for the proceedings\*. Lick is a Saxon word signifying a dead body; and lickgate is a shed or covered place at the entrance to a churchyard, intended to shelter the corpse and mourners from rain.

A correspondent of the Gentleman's Magazine notes, that in Somerset and Devon, the leach (or lich) road is the path by which a funeral is carried to church. It often deviates from the high road, and even from any path now in use; in which case the country people will break down the hedges rather than pass by an unhallowed way.

## BURYING IN CROSS-BOADS.

The practice of burying in Cross Roads has, in modern times been regarded as a mark of indignity; but such was not its original intention. In ancient times, "it was usual to erect crosses at the junction of four cross roads, as a place self-consecrated, according to the piety of the age; and it was not with a notion of indignity, but in a spirit of charity, that those excluded from holy rites were buried at the crossing roads, as places next in sanctity to consecrated ground."

## ENTRIES IN BIBLES.

As the Entries in family Bibles, prayer and other books, when made by a parent or head of a family, of births, marriages, deaths, and other circumstances, happening

<sup>\*</sup> Penny Magazine.

within his own knowledge, are good evidences of such transactions, it is surprising that so little regard should be paid to the regular entries of events of so much importance. No search can be too earnest to discover the family Bible, for innumerable are the individuals in England not registered in the parochial book of Baptisms. Some parents are Roman Catholic or sectarian, some are too poor, some too careless, whilst others erroneously think that all is accomplished by half-baptism; and unless the Bibles or private manuscripts of both parties contain entries of their families. there may, perhaps, not be a single proof in existence, by which their descents can be traced. Such also has been the neglect which many of our parish registers have suffered from political troubles during the time of Charles I., and from individual negligence since, that the utility of a family register is often greater than there ought to be occasion for. At the Shrewsbury assizes in 1834, a family Bible, containing the plaintiff's pedigree, was produced, and it was allowed to be read; the judge receiving it on the authority of the case Doe dem. Cleveland, York assizes. The memorandum had been written by one Although comprising the family person at one time. events of nearly half a century, the entries were, however, received as evidence. In the important case of Hans r. Hastings, argued in 1818, contesting the right to the earldom of Huntingdon, there was produced before the Attorneygeneral, to whom the petitioner's claims were referred, a Bible, from the Countess of Moira, deceased, the heiress of the late Earl of Huntingdon, in which she stated that the petitioner's uncle, and, on failure of his issue male, the petitioner's father, was next heir to the earldom. This was received in evidence as good and sufficient proof of the various statements in the petitioner's pedigree.

#### PRESENTATION TO LIVINGS.

MUCH Error prevails as to the right of purchasing Presentations to livings. The right of presenting may be purchased, but the exercise of the right for money is simoniacal. Hence, during a vacancy, the presentation cannot be sold; neither is it legal to buy the right of presenting a particular person. The right, whether of perpetual presentation, or of single presentation, must be conveyed absolutely and unconditionally, if conveyed at all..

<sup>\*</sup> Bishop of Landaff's Charge.

#### RIGHT OF GLEANING.

"There are those, in modern times, to whom, (such is their acuteness of intellect,) no law or custom, however venerable by age, and confirmed by immemorial usage, is supportable. Philosophic minds, such as those, with talents to refine, reform, and amend, even the Scriptures themselves, denounce the command of God, to leave the gleanings for the poor and the stranger, as inevitably leading to idleness, immorality, pilfering, and looseness of disposition. Blackstone treats of this custom, thus impiously arraigned, as being, in law, of dubious validity: by others it is asserted, that the laws of this country, (required ever to be in conformity with the laws of God), give to the poor as perfect a right to the gleanings as they give to the farmer his right to the crop\*."

## CARRYING A DARK LANTHORN.

THERE is an absurd vulgar Error that it is not lawful to go about with a dark lanthorn; which Mr. Daines Barrington refers to a clause in a law of police, Statuta Civitatis London. 13th Edw. III. Stat. iii., enacting, that in consequence of continual affrays in the streets of London, "no arms of any kind should be carried, but by a grant seigneur, ou autre prodome de bone conyssaunce; and even if such a person was in the streets during the night, he is enjoined to have a light with him †." Elsewhere, the same writer attributes this Error to Guy Fawkes's dark lanthorn in the powder-plot.

Equally unwarranted was the belief that it was illegal to carry an Air Gun, which has been in our times regarded as a toy, except in the few instances where it has been the

instrument of covert and cowardly revenge.

# THE MILLER'S TOLL.

THE practice of Millers taking a certain quantity out of every sack of corn sent to them to be ground, is not so direct an act of knavery as is commonly supposed; for we find it justified by law in a statute incerti temporis, no editor having been able to say whether it belongs to the

† Observ. on the More Ancient Statutes, p. 136. ‡ Ibid. p. 422.

<sup>\*</sup> Gleaning, note 21 to the Laws of the Hebrews relating to the Poor, by Maimonides

reign of Henry III., Edward I. or II.; but it is appended to the eighteenth year of Edward III. Its direction with regard to the toll seems, however, to be very vague and uncertain, as it is to be regulated "secundum fortitudinem cursús aquæ," (according to the strength of the watercourse); "which," observes Mr. Daines Barrington, "would puzzle a Smeaton of the present times to estimate with accuracy, and, I am afraid, was infinitely beyond the natural philosophers and civil engineers of those reigns \*."

### ARREST AFTER DEATH.

It was long erroneously believed that the body of a debtor might be taken in execution after his death; which idle story we remember to have been repeated in connexion with the embarrassments of Sheridan, at the time of his death, in 1816. Such was, however, the practice in Prussia, till its abolition by the Code Frédérique.

## TENDER IN PAYMENT.

A TENDER IN PAYMENT is rarely made in a legal manner. People commonly clog it with some condition, which makes it no Tender in law. One man goes to another, and says, "Here is your money; but I must have a receipt in full of all demands." A Tender, to be good, must be an unconditional one, clogged with no stipulation whatever †!

## LIABILITY OF DRUNKARDS.

We frequently hear Intoxication pleaded in extenuation, if not exculpation, of offences against the laws; but those who take such a course must be unaware of the maxim in legal practice, that those who presume to commit crimes when drunk must submit to punishment when sober. Indeed, acts of violence committed under the influence of drunkenness are held to be aggravated rather than otherwise; nor can the person reasonably bring it forward as an extenuation of any folly or misdemeanour which he may chance to commit. A bond signed in intoxication holds in law, and is perfectly binding, unless it can be shown that the person who signed it was inebriated by the collusion or contrivance of those to whom the bond was given.

\* Observations on the More Ancient Statutes, p. 187. † Mr. Baron Maule.

#### COUNCY RIGHTS.

It is generally thought that any man has a Right to ramble over a Common at his pleasure. But this is not the law. It is so far from it, that the lord of the manor in which the common lies may bring his action for trespass against any person found on a common without his permission, and, after notice given, can recover with

all costs against the trespassers \*.

In South Wales, it is usually believed that any person who can enclose a portion of land around his cottage or otherwise in one night, becomes owner thereof in fee. These persons are called Encroachers, and are liable to have ejectments served upon them by the lord of the manor, (which is often done,) to recover possession. The majority of the Encroachers pay a nominal yearly rent to the lord of the manor for allowing them to occupy the land. Such as possess these encreachments for sixty years without any interruption, or paying rent, become possessed of the same. It is usual to present the encroachments at a court leet held for the manor; upon perambulating which, (and this is generally done every three or four years,) these encroachments are thrown out again to the waste or common.

#### WASTE LANDS.

THE Wastes of this country, as they have been managed for ages, have been partly taken out of the hands of Nature, without having been wholly taken into the hands of man. The constant depasturing of cattle on wastes and commons counteracts the means which Nature makes use of in producing fertility; and, in consequence, greatly retards the period when the soil becomes sufficiently deep for agricultural purposes. There is not, perhaps, a healthy waste in England, which would not become a forest, were the commoners restrained from setting their flocks upon it.

## TREES IN PIELDS.

There is a strange prejudice against planting Trees in Fields; but that trees are not so prejudicial to the field in which, or around which they grow, is proved by the practice of those countries where the people are much better and more economical agriculturists.

<sup>\*</sup> The Attorney-General, in Parliament, 1837. † Quarterly Review.

#### LEGAL ERRORS.

Ir might be expected that the "uncertainty" of the Law would lead to many Errors and absurdities as to its provisions; and from a host of such baits for credulity, we select the following:—

1. That if a Criminal has hung an hour and revives, he

cannot afterwards be executed.

2. That it is necessary, in some legal process against the Sovereign, to go through the fiction of arrest; which is done by placing a ribbon across the road, as if to impede the royal carriage.

3. That Deeds executed on a Sunday are void.

 That Leases are made for the term of 999 years, because a lease of 1000 years would create a freehold.

That in order to disinherit an Heir-at-law, it is necessary to give him a shilling by the will; for that otherwise

he would be entitled to the whole property.

- 6. That a Surgeon or Butcher, (from the barbarity of their business,) are ineligible as jurors. This Error, Barrington attributes to surgeons receiving protection and encouragement from a statute of the 5th of Henry VIII., which exempts them from an attendance upon juries; the object of which was, doubtless, that they might not be " A ridicule has taken from their duties to their patients. been thrown upon surgeons from their having been incorporated formerly with barbers, from which union they have but within these few years separated themselves. The ridicule, however, arises from the change in the barber's situation, and not that of the surgeon : before the invention of perukes, barbers were not employed often in the low office of shaving; and as for the making of wigs, it is a branch of trade which hath no sort of connexion with chirurgeons \*."
- 7. That the old statutes have prohibited the planting of Vineyards, or the use of Sawing-mills Upon this last notion, now extinct and almost forgotten, Barrington, writing in the middle of the last century, conceived it "to have been occasioned by 5 and 6 Edw. VI. cap. xxii., for-bidding what are called gig-mills, and are supposed to be prejudicial to the woollen manufacture. There is likewise an Act of 23 Eliz cap. v., which prohibits any iron mills

<sup>\*</sup> Observations on the More Ancient Statutes, p. 423.

within two-and-twenty miles of London, to prevent the increasing dearness of wood for fuel. As for sawing-mills, I cannot find any statute which relates to them; and they are established in Scotland, to the very great advantage of both the proprietors and the public.\*" We are inclined to attribute this assumed illegality of saw-mills to the absurd prejudice that they would prove disadvantageous to the working classes, by substituting machinery for manual labour. The second saw-mill constructed in England, about the year 1767, was, indeed, destroyed by a misguided mob †.

8. That pounds of Butter may be any number of ounces.

That Bull-beef should not be sold unless the bull have been baited previously to being killed.

## UNREPEALED TEMPORARY LAWS.

Laws made on the spur of the occasion, should have a short and limited duration; otherwise in the course of years, it will be said, "magis sæculum suum supiunt, quàm rectam rationem."

It is still a felony to steal a Hawk, and death to associate one month with Egyptians;, or to wander, being a Soldier or a Mariner§, without a testimonial under the hand of a

justice.

Obsolete and useless statutes should be repealed; for they debilitate the authority of such as still exist and are necessary. Neglect on this point is well compared by Lord Bacon to Mezentius, who left the living to perish in the arms of the dead.

Persons carrying subjects out of the northern counties ||, or giving black-mail for protection; jailors forcing pri-

\* Observations on the More Ancient Statutes, p. 422.

† 5 Eliz. c. 20, p. 23. See the declaration of Louis XIV. "contre les Bohémiens, et ceux qui leur donnent retraite."—Code Pénal, p. 114. § 39 Eliz. c. 17. § 43 Eliz. c. 13.

the fallacy of considering manufacturing by machinery injurious to operatives, will be found explained at p. 57 of the present work.—M. Arago has thus pertinently illustrated the benefits derived by the working classes from machinery:—"Lancashire is the most manufacturing county in England. In it are situated the towns of Manchester, Preston, Bolton, Warrington, and Liverpool. Here, we may say, machinery has been most rapidly and most generally introduced: and with what effect? If we compare the total amount of the poor-rate in Lancashire with the amount of that raised throughout the country, and ascertain the share of each individual, we shall find that in this county it amounts to only one-third of the mean paid in the other counties."

soners to become approvers\*; masons confederating to prevent the statutes of labourers\*; purveyors, in certain cases‡, though purveyance is abolished; are all capital offenders: and none shall bring pollardz and crockerdz, (which were foreign coins of base metal), into the realm, on pain of forfeiture of life and goods§. The alterations in our government have rendered these particular provisions totally ineffective; but there are other obsolete statutes, which exist, the possible instruments of mischief in the hands of tyranny [].

## MAGNA CHARTA.

To attack "the Bulwark of English Liberty," as the Great Charter has been termed, may be hazardous; but we suspect that, in a few years, this bright sun of freedom will be shorn of its beams by the rapid advances of the age, in what may be termed the philosophy of history. Already, "the tide of opinion, which since the Revolution, and indeed, since the reign of James I., had been flowing so strongly in favour of our liberties, now seems, among the higher and more literary classes, to set pretty decidedly the other way. Though we may still sometimes hear a demagogue chattering about the wittenagemot, it is far more usual to find sensible and liberal men who look on Magna Charta itself as the result of an uninteresting squabble between the king and the barons. Acts of force and injustice which strike the cursory inquirer, especially if he derives his knowledge from modern compilations, more than the average tenors of events, are selected and displayed as fair samples of the law and of its administration. We are deceived by the comparatively perfect state of our present liberties, and forget that our superior security is far less owing to positive law, than to the control which is exercised over government by public opinion through the general use of printing, and to the diffusion of liberal principles in policy through the same means. Thus, disgusted at a contrast which it was hardly candid to institute, we turn away from the records that attest the real, though imperfect, freedom of our ancestors; and are willing to be persuaded, that the whole scheme of English

<sup>\* 14</sup> Ed. III. c. 10. † 3 Henry VI. c. 1. ‡ 28 Ed. I. stat. iii. c. 1. † 27 Ed. L ex Rot. in Ter. † Eden, Principles of Penal Law Third Edit. pp. 18—21.

polity, till the commons took on themselves to assert their natural rights against James I., was at best but a mockery of popular privileges, hardly recognised in theory, and

never regarded in effect.

"This system, when stripped of those slavish inferences that Brady and Carte attempt to build upon it, admits, perhaps, of no essential objection, but its want of historical truth. God forbid that our rights to just and free government should be tried by a jury of antiquaries! Yet it is a generous pride that intertwines the consciousness of here-ditary freedom with the memory of our ancestors; and no trifling argument against those who seem indifferent in its cause, that the character of the bravest and most virtuous among nations has not depended upon the accidents of race or climate, but has been gradually wrought by the plastic influence of civil rights, transmitted as a prescriptive inheritance through a long course of generations."

### CRIMINAL TRIAL.

Barringron observes that the common question asked a criminal, viz., "Culprit, how wilt thou be tried?" is improperly answered, "By God and my country." It originally must have been, "By God or my country," i. c. either by ordeal or by jury; for the question asked, supposes an option in the prisoner; and the answer is meant to assert his innocence, by declining neither sort of trial.

#### CONTRADICTORY PENAL LAWS.

It is one of the unavoidable imperfections of legislatures, that they are necessitated to assign the same name and penalty to whole classes of crimes, each of which differs from the other by an infinite variety of unsearchable circumstances. Yet, some offences are so intimately and so undistinguishably classed in their nature, that it is difficult to conceive any possible reason for a diversity in their punishment.

It seems a strange incongruity, that the offence of counterfeiting foreign coin‡, legitimated by proclamation, should work a corruption of the blood; which is saved§ by special proviso in the offence of counterfeiting current coin of the

<sup>\*</sup> Hallam, Hist. Mid. Ages, vol. iii, pp. 234-5.

<sup>†</sup> Observ. Ancient Stat. p. 73. 
‡ Foster, p. 226.

<sup>\$ 5</sup> Eliz, c. 11, and 8 and 9 W. HI. o 29, &c.

kingdom. Again, it is a clergyable felony, by our law, to destroy or damage the bridge of Brentford or Blackfriars; but it is death to commit the same offence on the bridges of London, Westminster, or Putney. There is a similar unaccountable distinction between prison-breakers convicted of perjury\*, or committed for entering black-lead mines† with intent to steal, and such as are convicted of, or committed for, any other offence within clergy.

## INEFFICACY OF CAPITAL PUNISHMENTS.

The Error of supposing Capital Punishment to be the preventive of crime, is thus pertinently shown by a popular writer:—"Those æras are in history found fatal to liberty, in which cruel punishments predominate. Lenity should be the guardian of moderate governments: severe penalties, the instruments of despotism, may give a sudden check to temporary evils; but they have a tendency to extend themselves to every class of crimes, and their frequency hardens the sentiment of the people. Une loi rigourcuse produit des crimes. The excess of the penalty flatters the imagination with the hope of impunity, and thus becomes an advocate with the offender for the perpetrating of the offence.

"The convicts who have stolen cloths from the tenters, or fustian from the bleaching-ground", or a lamb from their landlord's pasture, knew the law to have assigned death, without the benefit of clergy, to each of their offences: but, in the depth of ignorance and profligacy, mere instinct informed them that common humanity would recoil at the idea, and they relied for their security on the ingenuity of

mercy to evade the law.

"Legislators should then remember that the acerbity of justice deadens its execution; and that the increase of human corruption proceeds, not from the moderation of punishments, but from the impunity of criminals.

"We leave each other to rot, like scare-crows in the

\* 2 Geo. II. c. 25, § 2.

§ 22 Car. II. c. 25, § 3. | 1 4 Geo. I. c. 16. and 18. Geo. II. c. 19.

¶ Eden, Principles of Penal Law, third edit. 1785, p. 14.

<sup>† 25</sup> Geo. II. e. 10. A law of Edward I. enacts, that fer the third offence of theft from the lead mines in Derbyshire, "a knife should be struck through the hand of the criminal fixed on the table; and that in his agony and attitude he should continue, till he had freed himself by cutting off his hand."—Fuller, and Observ. on the More Ancient Statutes, p. 390.

‡ Eden, Principles of Penal Law. p. 18.

hedges; and our gibbets are crowded with human careases. May it not be doubted, whether a forced familiarity with such objects can have any other effect than to blunt the sentiments and destroy the benevolent prejudices of the

neonle\* ?"

Nearly half a century later, we find an able writer thus enforcing the policy of abolishing the practice of public executions: - " Far better would it be, if in the few cases for which death ought to be inflicted, the execution were to take place within the walls of the prison, none being present except the proper officers, the clergyman, and those persons whom the sufferer might desire to have with him at his departure. The effect might, possibly, be impressive to some good end, which most certainly it is not now, it there were no other announcement than that of a tollingbell when all was over, and hoisting a black flag, where it might be seen far and wide; and if the body of a murderer were carried under a pall, with some appropriate solemnity, to the place of dissection. Executions ought never to be made a spectacle for the multitude, who, if they can bear the sight, always regard it as a pastime; nor for the ouriosity of those who shudder while they gratify it. Indeed, there are few circumstances in which it is not expedient that a veil should be drawn over the crimes and sufferings of our fellow-creatures; and it is greatly to be wished that in all cases of turpitude and atrocity, no further publicity were given to the offence than is necessary for the ends of For no one who is conversant with criminal courts, or who has obtained any insight into the human mind, can entertain a doubt that such examples are infectious ;"

## DEATH-WARRANTS,

It has long been a popular but erroneous notion, that the "Death Warrants" of those criminals to whom mercy is refused are signed by the Sovereign. The sort of formal procedure which constitutes the legal authority for the taking away of human life is as follows:—The Recorder of London waits on the Sovereign in council, with the report of the convicts under sentence of death, and takes the royal orders with respect to the convicts whose sen-

<sup>\*</sup> Edon, Principles of Ponal Law, edit. 1785, p. 80, † Quarterly Review, 1831,

tences of death, previously pronounced at the Old Bailey, are commuted or confirmed. With regard to the latter, the Recorder writes out his warrant in his own hand, (no printed form being used on this occasion,) and seals it with his own black seal. This instrument he does not despatch to the Sheriffs, whose duty it is to see it carried into effect. He merely deposits it with the governor of Newgate, who, on receiving it, writes a note to each of the Sheriffs, who thereupon visit Newgate, and satisfy themselves of the authority on which they are to act, by inspecting the document lodged there. This being done, and the Sheriffs being satisfied that it is under the hand and seal of the Recorder, attend, on the day specified in the document, and demand of the keeper the body of the criminal for execution. The substance of this explanation appeared, a few years since, in the Morning Herald newspaper, and is, we are assured, correct.

# "HANGMAN'S WAGES."

The sum of thirteenpence-halfpenny has been commonly believed as the sum received by the common hang man for the execution of each criminal; whereas, it has no reference to the payment made to that officer. Butler, in his notes to *Hudibras*, has satisfactorily proved this to

be the fact: he says-

"I cannot really say whence that sum, (thirteenpence-halfpenny,) was called "Hangman's Wages," unless in allusion to the Halifax Law, or the customary Law of the Forest of Hardwick, by which every felon, taken within the liberty or precincts of the said forest with goods stolen to the value of thirteenpence-halfpenny, should, after three market-days in the town of Halifax, after his apprehension and condemnation, be taken to a gibbet there, and have his head cut off from his body."

The common hangman, or carnifex, of Rome appears to have been held in such odium, that he was not allowed to dwell within the city. In our country, however, in past ages, he was an officer of rank; Sir Henry Spelman, in his Glossary, states: "under our Danish kings, the carnifex was an officer of great dignity, being ranked with the Archbishop of York, Earl Goodwin, and the Lord Steward. Sir William Segar, Garter King at Arms, was imposed upon by Brook, a herald, who procured him by artifice to confirm arms to Gregory Brandon, who was found to

be common hangman of London.\* And from him, probably, (says Butler,) the hangman was called Gregory for some time. The name of Dun, which succeeded that of Gregory, is mentioned by Cotton, Virgil Travestie, published in 1640; and was continued to these "Finishers of the Law," or "Squires," as they have sometimes called themselves, by virtue of Gregory's heraldic honours: next, one "Jack Ketch" was advanced to the office, and his name has descended to our time.

If we may trust the subtle wit of Dryden, there is an accomplishment even in hanging a wretch: thus, "a man may be capable, as Jack Ketch's wife said of her servant, of a plain piece of work, a bare hanging; but to make a malefactor die sweetly was only belonging to her husband."

#### THE GUILLOTINE.

THERE are two Errors in the common history of this instrument of death, employed to this day in public executions in France. It is said to have been invented by Dr. Guillotin, who is stated to have been one of the very first that suffered death by its stroke; but upon reference to the biography of Dr. Guillotin, we find, that during the French Revolution, Guillotin merely pointed out the adoption of this machine, which had been long known as proper for the infliction of death without giving any pain to the sufferer. Unfortunately for Guillotin, some wags gave his name to the machine of which he was not the inventor, and which he had only brought into notice. is true that Guillotin was imprisoned, and nearly fell a victim to the carnage of the revolution; but he escaped, and after the termination of his political career, resumed the functions of a physician, and became one of the founders of the Academy of Medicine, at Paris. He died May 26, 1814, aged seventy-six, after enjoying, up to his last moments, the esteem of all who knew him.

### THE PILLORY.

By a statute, 51 Hen. III. A.D. 1266, dishonest bakers are to be suspended by the *collistrigium*, or stretch-neck; by which the neck was stretched in the same manner that

\* Anstis's Register of the Garter,

<sup>†</sup> Upon this machine, termed Mannaia in Italian, and which is engraved in the Symbolica Questiones of Achilles Boochius, 4to, 1555, see the Travels of Father Labat in Italy.

children are sometimes put into swings, in order to stretch their necks and make them grow: the ridicule attending the delinquent, in which suspended situation, must have been infinitely greater than when he stood or walked upon a floor. Collistrigium has, however, been improperly translated Pillory; for Sir Henry Spelman observes, that pillory was formerly used to signify the offence, and not the mode of punishment. Pilleurie is frequently used in the old French chronicles in this sense; and even by later writers, as Favin, in his Théatre d'Honneur, expresses himself thus:—"Nos François libertins et désobéissans par leur désordre et pilleurie."—(Vol. i. p. 751, Paris, 1620.)\*

# WHO ARE ESQUIRES?

THE present use of the distinction "Esquire" conveys not the remotest idea of its origin, or appropriation in past The esquire originated in chivalric times, when the sons of gentlemen, from the age of seven years, were brought up in the castles of superior lords; which was an inestimable advantage to the poorer nobility, who could hardly otherwise have given their children the accomplishments of their station. From seven to fourteen, these boys were called pages, or varlets; at fourteen, they bore the name of esquire. They were instructed in the management of arms, in the art of horsemanship, in exercises of strength and activity, so as to fit them for the tournament and the battle, and the milder glories of chivalrous gal-Long after the decline of chivalry, the word esquire was only used in a limited sense for the sons of peers and knights, or such as obtained the title by creation or some other legal meanst. Blackstone defines esquires to be all who bear office or trust under the crown, and who are styled esquires by the king in their commissions

† By the frankleyn of Chaucer, we are to understand a country squire.

<sup>\*</sup> This barbarous punishment has only been effaced from our Statute-book within the last quarter of a century. The glossaries tell us that collistrigium was intended magis ad ludibrium, et infamiam, quam ad panam; upon which Barrington well observes: "It may therefore well deserve the consideration of a judge, who inflicts the punishment of the pillory, (as it becomes at present, (1769.) the great occasion of mobs and riots.) whether it can be reconciled to the original intention of the law in this mode of punishment; and particularly, if this riotous scene ends in the death of the criminal, (as in the case of one Egan, in 1756.) whether the judge is not, in some measure, accessory both to the riot and the murder."—Observ. Ant. Stat. p. 48—9.

and appointments; and being once honoured by the sing with the title of esquire, they have a right to that distinction for life\*. These distinctions are now almost totally disregarded, and all gentlemen are generally termed esquires both in correspondence and in deeds; except solicitors and attorneys, who, in course of business, are called gentlemen.

## THE PEERAGE.

Much has been said of the antiquity of the English Pecrage, though it appears without the consideration that "the main body of the Pecrage are a modern nobility raised out of an ancient gentry. The description is, however, only accurate when the words are strictly confined to their English sense; for in the vocabularies of Continental nations, the class whom we call 'gentry' would be considered as a portion of the nobility'."

#### BACHELORS.

The word Bachelor has been commonly derived from bas chevalier; in opposition to banneret. But this, however plausible, is unlikely to be right. We do not find any authority for the expression bas chevalier, nor any equivalent in Latin, baccalaureus certainly not suggesting that sense; and it is strange that the corruption should obliterate every trace of the original term. Bachelor is a very old word, and is used in early French poetry for a young man, as bachelette is for a girl. So also, in Chancer:

" A younge Squire,
A lover, and a justy backelor \*."

## WHAT MAKES A GENTLEMAN?

The very vague sense in which the term Gentleman is used, has, assuredly, led to many erroneous notions of its origin and appropriation. It is, doubtless, a corruption of gentilhomme, our Saxon ancestors having very early substituted "mon," or "man," for the corresponding term of Norman-French from which they originally received the term. Selden says, "in the beginning of Christianity, the Fathers writ contra gentes, and contra gentiles—they were but one: but after all were Christians, the better sort of

\* Blackstone, Commentaries, Christian's notes (19). Sir J. Mackintosh. | | Hailam Hist. Mid. Ages, vol. iii. p. 507, note. people still obtained the name of gentiles, throughout the four provinces of the Roman Empire; as Gentilhomme in French, Gentiluoms in Italian, Gentilhombre in Spanish, and Gentleman in English\*." Yet, the same author says: "What a gentleman is, 'tis hard with us to define; in other countries, he is known by his privileges: in Westminster Hall, he is one that is reputed one; in the Court of Honour, he that hath arms. The king cannot make a gentleman of blood, (what have you said?) nor God Almighty, but he can make a gentleman by creation. If you ask which is the better of these two: civilly, the gentleman of blood—morally, the gentleman by creation, may be the better; for the other may be a debauched man, this a person of worth!."

In the feudal ages, "a gentleman in France or Germany could not exercise any trade without derogating, that is, losing the advantages of his rank. A few exceptions were made, at least in the former country, in favour

of some liberal arts, and of foreign commerce t.

"It was not till the reign of Henry VI. that the word 'Gentleman' began to be used in somewhat of that modern sense which distinguishes it legally from a nobleman, and morally from an uneducated plebeian. In the farther stages of the progress, heralds and genealogists began to complain of its indiscriminate application; while, in their antiquarian pleasantry, they represented it as being

usurped by every idle and useless upstart §."

Yet the term has not always been an honourable distinction. "The word Gentilhomme, (says Barrington,) though at first applied to persons of the greatest rank and consequence, from its being afterwards indiscriminately used in addressing any one, became, by the time of Francis I. of France, almost a term of offence; as Brantome informs us that his uncle, Monsieur de la Chataigneraye, resented this appellation from the Princess de la Roche sur Yon. On her complaining to the king of some expressions which Chataigneraye had made use of, Francis I. said she must thank herself for having addressed him so improperly ||. Sir Thomas Smith, in his Commonwealth, distinguishes the English below the rank of

I Brant. tome i, p. 375, ed. 1666.

<sup>\*</sup> Table Talk, voce Gentleman. † Ibid. † Hallam, Hist. Mid. Ages, vol. i. p. 206.

<sup>§</sup> Sir James Mackintosh, Hist. England, vol. 1. p. 269.

Esquire, into Gentlemen, Yeomen, and rascals.—Ch. xxi., London, 1662, 4to. In another place he uses the word rascality in the above sense "."

According to one of our old dramatists, the distinction rests upon very sleuder claims. Ben Jonson says: "Your legs do sufficiently show you are a gentleman born, sir; for a man born upon little legs is always a gentleman born."

After all, the term, although it is traceable to the earliest form of the Roman constitution, derives its present signifleation from a much later age. It is, indeed, a relie of chivalrous times; although it may suit the measure of a rhetorical roulade to say, the age of chivalry is gone,one of cold calculation has succeeded. "The spirit of chivalry, (says Hallam,) left behind it a more valuable successor. The character of knight gradually subsided in that of gentleman; and the one distinguishes European society in the sixteenth and seventeenth centuries as much as the other did in the preceding ages. A jealous sense of honour, less romantic, but equally elevated - a ceremonious gallantry and politeness -a strictness in devotional observances-a high pride of birth, and feeling of independence upon any sovereign for the dignity it gave-a sympathy for martial honour, though more subdued by civil habits-are the lineaments which prove an indisputable descent. The cavaliers of Charles I, were genuine successors of Edward's knights; and the resemblance is much more striking if we ascend to the civil wars of the League. Time has effaced much also of their gentlemanly, as it did before of the chivalrous character. From the latter part of the seventeenth century, its vigour and purity have undergone a tacit decay; and yielded, perhaps, in every country, to increasing commercial wealth-more diffused instruction—the spirit of general liberty in some, and of servile obsequiousness in others—the modes of life in great cities—and the levelling customs of social intercourse + "

In a narrower sense, a gentleman is generally defined to be "one who, without any title, bears a coat-of-arms, or whose ancestors have been freemen; and by the coat that a gentleman giveth, he is known to be, or not,

Observations on the More Ancient Statutes, p. 200,
 Hist. Mid. Ages, vol. iii, p. 310,

descended from those of his name that lived many hundred years since \*." This reminds one of the great Lord Burleigh's maxim: "Gentility is nothing but ancient riches." Shakspeare thus ridicules this heraldic claim, in *Hamlet*:—

- "1 Clown. There is no ancient gentlemen but gardeners, ditchers, and grave-makers; they hold up Adam's profession."
  - 2 Closen. Was he a gentleman?
  - 1 Closen. He was the first that ever bore arms.

2 Closes. Why, he never had none.

1 Cloven. What, art a heathen? How dost thou understand the scriptures. The scripture says, Adam digged; Could he dig without arms?"

There is likewise said to be a Gentleman by office and in reputation, as well as those that are born such +; and according to Blackstone, quoting Sir Thomas Smitht, "Whosoever studieth the laws of the realm-who studieth in the universities-who professeth the liberal sciencesand, (to be short,) who can live idly and without manual labour, and well bear the port, charge, and countenance of a gentleman-he shall be called master, and taken for a gentleman." Upon this confused definition, it is well observed: "The learned author must have been somewhat puzzled with his definition of a gentleman, as understood in his time. Having defined a gentleman to be one who studieth the laws, &c., he adds, (to be short,) that he who can live idly, and bear the port, &c. of a gentleman, is a gentleman; that is, if he can live idly, and if he can do as a gentleman does, (it not being defined what this is,) he is a gentleman. Perhaps, a definition of the term, as now used, would not be easily made; it being extended by the courtesy of modern manners to many who do not come within the ancient acceptation of the term, and denied by public opinion to many whose rank and wealth do not make up for the want of other qualifications §."

# " FITZ."

It was a custom among the ancient Irish, when the father died, for his son to take the name, lest it should be forgotten: hence the names Fitz-herbert, Fitz-gerald, derive their origin, not as denoting the individuals to be of spurious birth, as some have imagined, but in com-

<sup>\*</sup> Jacob's Law Dictionary. † 2 Inst. 668. ‡ Commonwealth, p. 406 § Penny C clopædia, vece Gentleman.

pliance with the custom observed before the use of surnames, when a person took his father's name, with the addition of his being his son; the prefix Fitz being a Norman word, derived from the French fits, a son\*.

#### ANTIDOTES TO POISONS.

THERE is a common notion that every Poison hath its Antidote; upon which Sir Thomas Browne quaintly observes :- "Though it be true that God made all things double, and that, if we look upon the works of the Most High, there are two and two, one against another; that one contrary hath another; and poison is not without a poison to itself: yet bath the curse so far prevailed, or else our industry defected, that poisons are better known than their antidotes; and some thereof do scarce admit of any. And lastly, although to some poison men have delivered many antidotes, and in every one is promised an equality unto its adversary, yet do we often find they fail in their effects. Moly will not resist a weaker cup than that of Circe; a man may be poisoned in a Lemnian dish; without the miracle of John there is no confidence in the earth of Paul; and if it be meant that no poison could work upon him, we doubt the story, and expect no such success from the diet of Mithridates !."

This piece of olden philosophy has been beautifully illustrated by Shakspeare, in the Friar's soliloquy, in Romeo and Juliet, Act 2, sc. iii.

" The earth, that's nature's mother, is her tomb; What is her burying grave, that is her womb: And from her womb, children of divers kind We sucking on her natural bosom find: Many for virtues excellent, None but for some, and yet all different. O mickle is the powerful grace, that lies In herbs, plants, stones, and their true qualities: For nought so vile that on the earth doth live, But to the earth some special good doth give : Nor aught so good, but, strain'd from their fair use, Revolts from true birth, stumbling on abuse; Virtue itself turns vice, being misapplied; And vice sometime's by action dignified. Within the infant rind of this weak flower, Poison hath residence, and med'cine power:

<sup>\*</sup> Camden, Remains. † Vulgar Errors, b. vii. o. xvii. pp. 432-3.

For this, being smelt, with that part cheers each part; Being tasted, slays all senses with the heart. Two such opposed kings encamp them still In man as well as herbs,—grace, and rude will; And, where the worser is predominant, Full soon the canker death eats up that plant."

## POISONS OF THE ANCIENTS.

At the annual conversazione, at the College of Physicians, in the year 1832, Sir Henry Halford, the accomplished President, read a paper embodying much patient research; in which he investigated the causes of the death of certain celebrated characters of antiquity, with especial reference to the knowledge of Poisons possessed by the Ancients. The only portions of the classical anecdote in this paper which are suited to our present purpose, are those which correct certain erroneous notions as to the deaths of Hannibal and Alexander the Great.

What was the poison by which Hannibal destroyed It is improbable that we shall ever know. Modern chemistry has discovered a variety of subtle poisons that might be introduced into a ring, and under certain circumstances destroy life. One drop of prussic acid might produce paralysis, and if taken into the stomach would instantly arrest the current of life. But, it was not likely that the Carthaginians were acquainted with prussic Libya, most probably, produced poisons sufficiently subtle and destructive to accomplish the fatal purpose of Hannibal. As to the report of its being bullock's blood, that, (Sir Henry observed,) must be a fable, as well as in the case of the death of Themistocles; for it is well ascertained that the blood of the ox is not poison. accomplished nobleman told Sir Henry that he had been present at a bull-fight in Spain, when, after the matador had killed the bull, a person ran up, caught the animal's blood in a goblet, and drank it off as a popular remedy for consumption.

Alexander the Great is said to have been poisoned: but this is inconsistent with the very detailed account of his illness given by Arrian. The report is that the poison was sent by Antiphon, and was of so peculiar a nature that no silver or metallic substance would contain it, and it was conveyed in the hoof of a mule. But the article

was really onyx, as Horace:-

" Nardi parvus onyx."

Now, the word onyx, in Greek, signifies not only a stone but unguis, a hoof or nail; and the second sense has evidently been given instead of that of a precious stone. Alexander really died of a remittent fever, caught at Babylon. As to the cause of it, Arrian expressly states the king was temperate and forbearing in the pleasures of the table; and when we consider the laborious occupations of Alexander, amidst frost and snow, and especially the marsh miasmata of the Babylonian lakes, Sir Henry thinks there is no difficulty in conceiving this to be too much even for his frame of adamant. The diary of Arrian, containing the details of Alexander's illness and death, vindicates his memory from the imputation of his having brought on his fate by intemperance".

## POISON IN THE NAILS.

THE double meaning of the term onge, referred to the above abstract, explains the Popular Error of Poison being retained by persons in their Nails.

## THE RIUNOCEROS HORN.

The alleged preservative virtues of the Rhinoceros' horn in the detection of poison must be regarded as a Popular Error. From the earliest time, this horn has been supposed to possess mysterious properties,—to be capable of causing diseases, and discovering the presence of poison; and in all countries where the rhinoceros exists, but especially in the East, such is still the opinion respecting it. In the details of the first voyage of the English to India, in 1591, we find rhinoceros horns monopolised by the native sovereigns on account of their reputed virtues in detecting the presence of poison.

Thunberg observes, in his Journey into Caffraria, that

<sup>\*</sup> Sir Thomas Browne thus notices the poisoning of Alexander: "Surely we had discovered a poison that would not endure Pandorn's box, could we be satisfied in that which for its coldness nothing could contain but an ass's hoof, and wherewith some report that Alexander the Great was poisoned. Had men derived so strange an effect from some occult or hidden qualities, they might have silenced contradiction; but, ascribing it unto the manifest and open qualities of cold, they must pardon our belief; who perceive the coldest and most Stygian waters may be included in glasses: and by Aristotle, who saith, that glass is the perfectest work of art, we may understand they were not then to be invented."—Yulgar Errors, b. vii. c. xvii. p. 431.

"the horns of the rhinoceros were kept by some people both in town and country, not only as rarities, but also as useful in diseases, and for the purpose of detecting poisons. As to the former of these intentions, the fine shavings were supposed to cure convulsions and spasms in children. With respect to the latter, it was generally believed that goblets made of these horns would discover a poisonous draught that was poured into them, by making the liquor ferment till it ran quite out of the goblet. Of these horns, goblets are made which are set in gold and silver, and presented to kings, persons of distinction, and particular friends, or else sold at a high price, sometimes at the rate of 50 rixdollars each." Thunberg adds: "When I tried these horns, both wrought and unwrought, both old and young horns, with several sorts of poison, weak as well as strong, I observed not the least motion or effervescence; but when a solution of corrosive sublimate, or other similar substance, was poured into one of these horns, there arose only a few bubbles, produced by the air which had been inclosed in the pores of the horn, and which were now disengaged."

Rankin, in his Wars and Sports, observes that going through the sunderbunds of Bengal, he fell in with a man who "possessed a small horn of a rhinoceros that had been killed in the woods, and this man, (a Portuguese,) had the same universal opinion of its virtues. On being asked how it ought to be used, he said that he put a small quantity of water in the concave part of the root, then held it with the point downwards, and stirred the water with the point of an iron nail till it was discoloured, when the patient

was to drink it."

Calmet, in his *Dictionary of the Bible*, published about 120 years since, observes that the horn of the rhinoceros is made use of by the Indian kings at table, because, as is believed, "it sweats at the approach of any kind of poison whatever."

"It would not be difficult to muster a host of authorities on this point. Indeed, most travellers who have visited the native regions of the rhinoceros have alluded to the great value set upon the horn for its imaginary virtues; and as no other horn has been or is now regarded in the same light, we are inclined to consider this horn of power and excellence, in which the poisoned draught of secret malice discovers itself, to be that to which the psalmist al-

luded: ("My horn shalt thou exalt like the horn of a unicorn"); and consequently, that its bearer, the "unicorn" was the rhinoceros. In conjunction with these almost miraculous properties, the formidable nature of this horn as a weapon of defence, before which, used as the rhinoceros uses it, no enemy can stand, might also have been taken into account."

### SLOW POISON.

In the reign of Edward VI., there was a prevailing notion that Slow Poison might be given to a person, which would infallibly kill him within a given number of months or years. Shakspeare alludes to this in his Winter's Tule:

" I would do this, and that with no rash paison;
But with a lingering dram that should not work
Maliciously like poison."

-Barrington supposes the word "maliciously" to be here used in the sense it bears in the common forms of indictment for murder.

The notion of a Slow Poison has long been exploded by physicians, who have accordingly struck out all the anti-dotes to prevent the effects of it from the new *Pharmaco-pæia*.

### AQUA TOFANA.

It was, for a long time, supposed that there actually did exist in Italy a Secret Poison, the effects of which were slow, and even unheeded, until a lingering malady had consumed the sufferer. No suspicions were excited; or, had they led to any post mortem examination, no trace of the effects of the terrific preparation could have been detected. The class of persons who practised this wicked art were known under the name of "Secret Poisoners:" they were believed to possess the power of destroying life at any stated period, from a few hours to a year; and, during the sixteenth and seventeenth centuries, they were regarded in all the nations of Europe with extraordinary terror.

The most infamous of these poisoners was an Italian woman, named Tofana, who, about the middle of the seventeenth century, invented a poisonous fluid, afterwards called Aqua Tefana. It was towards the year 1659, during the pontificate of Alexander VII., that the exist-

<sup>\*</sup> The Menageries, vol. iii. p. 19-22.

ence of this baneful preparation was suspected. It was then observed at Rome, that many young married women became widows; and that many husbands, suspected to be not agreeable to their wives, "died off." The government used great vigilance to detect the poisoners; and suspicion at length fell upon a society of young wives, whose president was an old woman, who pretended to foretell events; and, in her horoscopic predictions, named very exactly the death of many persons. By means of a crafty female, their practices were detected; the whole society were arrested, and put to the torture; and the old woman, whose name was Spara, together with four others, were publicly executed. It appears that Spara, who was a Sicilian, derived her art from Tofana at Palermo; the latter selling the poison, hence called Aqua della Tofana, in small vials with this inscription, Manna di San Nicolas di Bari, and ornamented with the image of the saint. At length, Tofana was dragged from a monastery in which she had taken refuge, and put to the torture, when she confessed having been instrumental to the death of no less than 600 persons!

Garelli, physician to Charles VI., writing to Hoffman on the subject, says: "Your elegant essay on the popular errors respecting poisons brought to my recollection a certain slow poison, which that infamous poisoner, still alive in Naples, employed to the destruction of six hundred persons. It was nothing else than crystallised arsenic dissolved in water, with the addition, but for what purpose I know not, of the herb Cymbalaria (antirrhinum)." The dose of this poison was six drops; yet, though it was in this state of concentration, its nature could not be detected, so little was that age acquainted with the art of chemical analysis; whereas, at the present time, even when arsenic has been dissolved in the stomach, and mixed with vegetable and animal fluids, it may be reduced to its metallic form, and made to exhibit all the physical properties of the metal to the naked eye, with as much distinctness as in any quantity, however large, when only the twentieth part of a grain has been procured. Modern chemistry, has, therefore, deprived the poisoner of all chance of escape, by concealing or disguising the poison administered.

By an old Scotch statute (James II. Parl. vii. cap. 30), it was made high treason to bring any poison into the

kingdom; which law, Barrington conjectures, was chiefly intended to provide against the importation of poisons from Italy, where assassination, and this kind of murder, have but too much prevailed: "I have been informed," he adds, "that it is not uncommon in Italy to say, upon a man's expressing hims if with regard to another, from whom he hath received an injury, I wish he would but drink a cup of chocolate with me."

" An Italian's revenge may pause, but's ne'er forgot,"

Flavouren's Fair Maid of the Inn.

The ingenious author of the Memoirs of Petrarch, however, supposes that this prejudice against the Italians arose from two or three supposed murders of this description at Avignon, during the residence of the French popes at that place.

VENICE GLASSES.

Dhisking-ollasses were formerly manufactured at Venice, which the credulous believed to have the property of exploding upon a poisoned liquid being poured into them! We can only refer this absurd belief to an exaggeration of the celebrity of Venice Glass. Thus, we find it to have been proverbial as a standard of perfection. Howell says: "A good name is like Venice glass, quickly cracked, never to be amended, patched it may be." Of this reputed romantic property of Venice Glass, Mrs. Radeliffe has availed herself in the Mysteries of Udolpho; and Lord Byron thus adverts to it in The Two Foscari, Act v. scene 1:--

" Doye. I do feel athirst; will no one one bring me here A cup of water?

I take yours, Loredano, from the hand Most fit for such an hour as this,

Lor. Wily so?

Doge, 'I is said that our Venetian crystal has

Such pure antipathy to poisons, as,

To burst if aught of venous touches it

Lor. Well, sie ?

Doge. Then it is false, or you are true;

For my own part, I credit neither; 'tis An idle legend'

Sir Thomas Browne thus touches upon this legendary Error:— Though it be said that poison will break a Venice glass, yet have we not met any of that nature.

\* Familiar Letters, p. 310,

Were there a truth herein, it were the best preservative for princes and persons exalted unto such fears; and surely far better than divers now in use. And though the best of China dishes, and such as the Emperor doth use, be thought by some of infallible virtue to this effect; yet will they not, I fear, be able to elude the mischief of such intentions."

Venice glass had likewise the reputed property of miraculously remaining sound under very extraordinary circumstances. Credulous old Aubrey relates in his Miranda: "in Dr. Bolton's Sermons is an account of the Lady Honywood, who despaired of her salvation. Dr. Bolton endeavoured to comfort her; said she, (holding a Venice glass in her hand.) 'I shall as certainly be damned as this glass will be broken;' and at that word, threw it hard on the ground, and the glass remained sound; which did give her great comfort. The glass is yet preserved among the cimelia of the family†."

### ARABS AND THE PLAGUE.

THE Arabs seldom employ medicine for the Plague; but, though predestinarians, the common belief in Europe is erroneous, that supposes they use no precautionary mea-Burckhardt states, that many of the townsmen fled from Medina to the desert; alleging as an excuse, that although the distemper was a messenger from heaven sent to call them to a better world, yet being conscious of their unworthiness, and that they did not merit this special mark of grace, they thought it more advisable to decline it for the present, and make their escape from the town. The Sembawees have a superstitious custom of leading a she-camel through the town, covered with feathers, balls, and all sorts of ornaments, after which it is slaughtered. and the flesh thrown to the dogs. By this process, they hope to get rid of the malady at once, as they imagine that it has been concentrated in the body of the devoted animalt.

### THE ADDER-STONE,

Anguinum Ovum, was a fabulous kind of egg, said to be produced by the saliva of a cluster of serpents, and possessed of certain magical virtues; the superstitious belief in

<sup>\*</sup> Vulgar Errors; b. vil. c. xvii, p. 431.

<sup>†</sup> Miscellanies. By John Aubrey, Esq. F.R.S. p. 132.

<sup>.</sup> Hist. Arabia. By A. Crichton.

which was very prevalent among the ancient Britons, and there still remains a tradition of it in Wales. This wondrous egg seems to have been nothing more than a bead of glass, used by the Druids as a charm to impose upon the people, whom they taught to believe that the possessor of it would be fortunate in all attempts. The method of ascertaining its genuineness was no less extraordinary than the powers attributed to it. It was to be enchased in gold and thrown into a river, and if it was genuine it would swim against the stream. Pliny gives a similar account of it.

#### THE RHONE AND THE LAKE OF GENEVA.

John Evelyn, in his *Diary*, repeats the so-often-repeated assertion, that the Rhone passes through the Lake of Geneva with such velocity as not to mingle with its waters. Of all the fables which credulity delights to believe and propagate, this should appear the most impossible to obtain belief; for the Rhone, when it enters the lake, is both of the colour and consistency of pea-soup, and it issues out of it perfectly clear, and of so deep a blue that no traveller can ever have beheld it without astonishment. Evelyn had seen it in both places, and yet repeats the common story, which, had it been fact instead of fable, would have been less remarkable than the actual, and as yet unexplained, phenomenon of its colour at Geneva†.

#### ARAB HORSES.

Thouan the Arabs justly boast of their Horses, it is a common Error that supposes them to be very abundant in Arabia. In the Sacred Writings, and down to the times of Mohammed, they are seldom mentioned; camels being mostly used both in their warlike and predatory excursions. The breed is limited to the fertile pasture-grounds, and it is there only that they thrive; while the Bedouins, who occupy arid districts, rarely have any. In Nejed, they are not nearly so numerous as in the rich plains of Syria and Mesopotamia. In Hejar, they become scarcer; and thence towards Yemen, they become fewer still, both the climate and pasture there being reckoned injurious to their health. The great heat of Oman is also deemed unfavour-

<sup>\*</sup> Is not this fable the origin of our nursery tale of Mother Goose and the Golden Egg? † Quarterly Review, vol. xix. p. 14.

able to them. In the district of Gebel Shammar, there are many encampments that possess none; in Medina they are not seen, and in Mecca there are, perhaps, not more then 60 belonging to private individuals; so that the estimate of Burckhardt is, perhaps, correct, when he affirms, that from Akaba to the shores of Hadramant. comprising the great chain of mountains and the western plains towards the sea, the amount of horses is not more than 5000 or 6000; while the aggregate number in the whole peninsula does not exceed 50,000-a number far inferior to what the same superficial extent in any other part of Asia or Europe would furnish. Neither are all the Arab horses of the most select race-of the most perfect or distinguished quality; and perhaps, not above five or six in a whole tribe deserve the name of first-rate in respect to size, bone, beauty, and action. Still, their numbers are considerable; each of which may be bought, if purchased in the desert, at from £150 to £200.

It may be remarked that the Arabs have great faith in certain superstitious charms, which they suppose will protect their horses from accidents. They use talismans written on a piece of triangular paper, which are put into a leathern purse of the same shape, and fastened round the animal's neck, as a defence against witchcraft from unlucky eyes. A couple of boar's tusks, joined at the extremities by a silver ring, are suspended from their mane

to keep them from the farcy\*.

### KEEPING PIGEONS.

The Statute for view of Frank-pledge, 18 Edw. II., sec. 33, mentions the punishing of those who take Pigeons in the winter, which proves that they never could have been considered, (according to some writers on the law,) as a nuisance, and that the keeping of them was indictable in the leet; the contrary of which is most expressly declared. "The nuisance apprehended from pigeons is their eating up the seed-corn after it is sown; it hath of late

\* Hist, Arabia. By A. Crichton,

i Hartlib, (in his Legacy of Husbandry,) supposes that there were in his time 26,000 dove-houses in England, and allowing 500 pair to each house, and four bushels yearly to be destroyed or consumed by each pair, makes, by this calculation, the loss of corn very amazing: 26,000 × 500 = 13,000,000 bushels!—See Fuller's Worthies, p. 279.

been discovered, however, that, like most other animals who are persecuted for supposed mischief, pigeons are of singular use, in consuming the seeds of weeds, as also the eggs of noxious insects, and the insects themselves. Every one who hath woods belonging to him orders the bird called a woodpecker to be destroyed. This bird, however, cannot perforate with its bill a tree that is sound, and therefore, gives timely notice of its decay; after which it only burtheneth the ground, and should leave room for a more profitable one to grow in its place. I could wish that a proper fable was added to the common collection, to impress an early sense of tenderness in children to animals of all kinds; their barbarity being often excused, under pretence of destroying what does harm "."

### BAHBAROUS SQUIBBEL CAGES,

"THE barbarous practice of 'spinning a cockehafer, provided the tail of the insect be callous, and itself void of fear during the operation, is a less exquisite refinement in the art of tormenting, than to confine a poor Squirrel in a revolving cage" which is erroneously thought to be an enlargement of the animal's enjoyment. Whereas, "if there be one method more efficacious than another to deprive it of liberty, it is this very contrivance, whereby, constituted the centre of a system, a governor of Barataria, do what he will, he never can possibly be in a state of rest for, let him vary ever so little, even for a moment, from his centrical position, everything begins tumbling about his ears. I have many times," says Sir George Head, "observed, with pity, the panting sides of an unfortunate animal; its state of anxious tremor, in its hall of torment; its breath exhausted by galloping, kicking, and straining; worried and alarmed, without enjoying a single inch of progressive motion, or one refreshing change of attitude, for minutes together, within his tantalizing, turn-about treadmill. Some, no doubt, will say that the animal is happy, and that of exercise, the soul of nature, he has A man sitting out of doors in a thoroughfare, and pelted with mud, may believe himself hunting; or lying on his stomach on wet grass, mistake it for swimming, as reasonably as a poor squirrel, in the midst of a whirling maze of wood and iron, can enjoy liberty and the delight

\*Barrington, Observ. Ant. Stat. p. 104-5.

of running!—the dog, confined by his chain, moves unmolested in a circle; the prisoner changes position in his cell. Home is home, be it ever so homely; but if the house itself runs round, its homeliness surely is destroyed altogether\*."

### THE HAWTHORN, OR MAY-BUSH,

Is common throughout England, and is to be seen in every hedge:

"And every shepherd tells his tale, Under the hawthorn in the dale,"—Milton, L'Allegro,

"We must not, however, let our fancies run so riot, as to suppose that the poet here intends that we should conceive a beautiful and youthful nymph sitting by the shepherd's side, to whom he is pouring forth his fond tale of love: for, in very truth, the real image present in the poet's mind was simply that of a shepherd telling his tale, or, in unpoetic language, counting his sheep, as he lies extended in the shade of this tree; and to those who take pleasure in a country life, and rural associations, perhaps this image will appear scarcely less poetical or less pleasing than the former interpretation, which many readers give to this passage at first sight."

#### MYTHOLOGY OF SCIENCE.

M. Arago, in his brilliant éloge of Fourier, observes :-"The ancients had a taste, or rather a passion, for the marvellous, which made them forget the sacred ties of gratitude. Look at them, for instance, collecting into one single group the high deeds of a great number of heroes, whose names they have not even deigned to preserve, and The lapse of attributing them all to Hercules alone. centuries has not made us wiser. The public in our times also delight in mingling fiction with history. all careers, particularly in that of the sciences, there is a desire to create Herculeses. According to the vulgar opinion, every astronomical discovery is attributable to The theory of the motions of the planets is identified with the name of Laplace; and scarcely any credit is allowed to the important labours of D'Alembert, Clairaut, Euler, and Lagrange. Watt is the sole inventor

<sup>\*</sup> Home Tour.

<sup>†</sup> Flora Domestica.

of the steam-engine; whilst Chaptal has enriched the chemical arts with all those ingenious and productive processes which secure their prosperity." To countervail this error, Arago continues: "Let us hold up to legitimate admiration those chosen men whom nature has endowed with the valuable faculty of grouping together isolated facts, and deducing beautiful theories from them; but do not let us forget that the sickle of the reaper must cut down the stalks of corn, before any one can think of collecting them into sheaves."

### TRANSMUTATION OF METALS.

In the ridicule which has been thrown around the labours of the Alchemists, the fact that they possessed a certain portion of useful knowledge has been lost sight of. as well as the disadvantages of their practice: for the secreey which the alchemists affected repelled improvement, and almost every discovery died with its inventor. Mr. Brande observes, that "the Transmutation of baser Metals into gold and silver, which was the chief, and in most cases the only, object of the genuine alchemists, was not merely regarded as possible, but believed to have been performed, by some of the more enlightened chemists of the seventeenth century. And, before we treat this belief with ridicule, we should consider the slender means then existing for the detection of the delusive errors of alchemy. Thus, in perusing the history of these transmutations, as recorded by Helvetius, Boerhaave, Boyle, and other sober-minded men, it would be difficult to resist the evidence adduced without the aids of modern science, Lord Bacon's sound sense has been arraigned for his belief in alchemy, though he, in fact, rather urges the possibility than the probability of transmutation; and, considering the infant state of the experimental sciences, and of chemistry in particular, in his age, and the plausible exterior of the phenomena that the chemists were able to produce, he is rather to be considered as sceptical than credulous upon many of the points which he discusses."

"It is true that the alchemists were guided by false views, yet they made most useful researches; and Lord Bacon has justly compared them to the husbandman who, searching for an imaginary treasure, fertilised the soil. They might likewise be compared to persons who, looking for gold,

discover the fragments of beautiful statues, which separately are of no value, and which appear of little value to the persons who found them, but which when selected and put together by artists, and their defective parts supplied, are found to be wonderfully perfect, and worthy of conservation\*."

It was the fashion of the alchemists to adopt one of the youngest of the fraternity as a son. Thus, Ashmole in the diary of his life:—"1651, June 10—Mr. Backhouse told me I must now needs be his son, because he had communicated so many secrets to me;" and again:—"1653, May 13—My father Backhouse, lying sick in Fleet-street, over against St. Dunstan's church, and not knowing whether he should live or die, about eleven of the clock, told me, in syllables, the true matter of the philosopher's stone, which he bequeathed to me as a legacy." However, Backhouse recovered.

#### BENEFITS OF ASTROLOGY.

In former ages, the influence of Astrology over an individual often added to his energy. As such, it may have been a beneficial fallacy. No great undertaking, perhaps no good one, was ever accomplished but by him who firmly felt that he was called upon and named to accomplish the task. A philosopher of France has told us that modern science earns its chief honours by dispelling this enthusiasm. "Astronomy," he observes, "is the proudest monument of the human mind, and the noblest evidence of its powers. Equally deceived by the imperfections of his senses and the illusions of self-love, man long considered himself to be the centre of the movements of the stars. vanity has been punished by the terrors to which they have given rise. At length, ages of labour removed the veil which concealed the system of the world from He then found himself placed on the surface of a planet so small as to be scarcely perceptible in that solar system which itself is but a point in the infinity of space. The sublime results to which his discoveries have conducted him, are fit to console him for the rank which they assign to the earth. Therefore, we should employ every endeavour to preserve and increase these exalted sources of knowledge, the delight of all thinking beings. They



<sup>\*</sup> Sir H. Davy, Consolations in Travel, p. 236.

have rendered important services to navigation and geography; but the greatest of all benefits which they have conferred upon society must be found in the removal of the fears excited by the celestial phenomena, and the confutation of errors created by our ignorance of the true relations which we bear to nature."

### ALL ASTROLOGERS NOT IMPOSTORS.

CERTAIN Astrologers were not impostors, as they are often described by the hasty, or the ignorant. Partridge, who was severely bantered by Swift, was not the impostor that the Dean would make him appear. "Partridge," says an acute and original writer, "believed sincerely that the stars were indices of fate; and he wrote and acted in that belief, however much he may have been deceived by appearances. He found, as all students in astrology find, that every horoscope enabled him to foretel a certain number of events; and if his prognostics failed in some cases, he ascribed the failure to no defect of his celestial intelligences, but to the Errors or short-sightedness of his art+."

### DOUBTFUL INVENTIONS OF ROGER BACON.

Few of the illustrious characters in the history of philosophy have been so thoroughly misrepresented as that of Roger Bacon. He was the victim of contemporary malice. His writings, destroyed or overlooked, only existed in manuscript, or mutilated printed versions, till nearly the middle of the last century. In the mean time, tradition framed his character on the vulgar notions entertained in his day of the results of experimental science; and the learned monk, searching for the philosopher's stone in his laboratory, aided only by infernal spirits, was substituted for the sagacious advocate of reform in education, reading, and reasoning, and what was equally rare, the real inquirer into the phenomena of nature. Yet, he was accused of practising witchcraft, thrown into prison, and nearly starved, for exposing the prevalent immorality of the clergy; and, according to some, he stood a chance of being burned as a magician.

The first charge brought against Bacon by his Franciscan brethren was that of Magic, which was then fre-

<sup>\*</sup> In Place. | Sir R. Phillips, Walk to Kew.

quently adduced against those who studied the sciences, and particularly chemistry. Yet, in his tract De Nullitate Magiæ, Bacon declares that experimental science enables us to investigate the practices of Magic, not with the intent of confirming them, but that they may be avoided by the philosopher.

But due allowance must be made for the times in which Bacon lived. Even his Astrology and Alchemy, those two great blots upon his character, as they are usually called, are, when considered by the side of a later age, harmless modifications; irrational only because unproved, and neither impossible nor unworthy of the investigation of a philoso-

pher, in the absence of preceding experiments.

The two great points by which Bacon is known are his reputed knowledge of Gunpowder, and of the Telescope. With regard to the former, it is not at all clear that what we call gunpowder is intended, though some detonating mixture, of which saltpetre is an ingredient, is spoken of as commonly known, in Bacon's Opus Majus. are also passages in his De Secretis Operibus, which expressly mention sulphur, charcoal, and saltpetre as ingredients. But, independently of the claims of the Chinese and Indians, Marcus Græcus, who is mentioned by an Arabic physician of the ninth century, gives the receipt for gunpowder. The discovery has sometimes been given to Bartholomew Schwartz, a German Monk, and the date of 1320 annexed to it, a date posterior to that which may be justly claimed for Bacon. Upon the authority, however, of an Arabic writer in the Escurial collection, referred to by Mr. Hallam, there seems little reason to doubt that gunpowder was introduced through the means of the Saracens into Europe, before the middle of the thirteenth century; though its use in engines of war was, probably, more like that of fireworks than artillery. Many authorities might be adduced to prove the common use of gunpowder early in the fourteenth century. Edward III. employed artillery with memorable effect, at the battle of Cressy; and in the fifteenth century, hand-cannons and muskets came into use, and gunpowder was commonly employed\*.

<sup>\*</sup> It is said that gunpowder was used in China as early as the year A.D. 85, and that the knowledge of it was conveyed to us from the Arabs on the return of the Crusaders to Europe; that the Arabs made use of it at the siege of Mecca in 690; and that they derived it from the Indians.

" Bacon's discovery of optic lenses has been established Dr. Smith, indeed, in his Treatise on beyond a doubt. Optics, has endeavoured to prove that his conclusions on the theory of these instruments were purely theoretical, and that Bacon had never made any actual experiments This has been controverted by Mr. on the subject. Molyneux, who contends that Bacon was not only acquainted with the properties of lenses theoretically, but that he also applied them practically. We may mention, however, that some passages in Bacon's writings, which were pointed out by Digges as early as the year 1591, and were interpreted by him and others as referring to the principle of the telescope, seem to have been completely misunderstood, and to contain, in reality, nothing of the kind\*."

Among other inventions attributed to Bacon is that of the introduction of the Arabic numerals into England; but this has been completely disproved<sup>†</sup>.

### FRIAR BACON'S BRAZEN HEAD.

THE following abridged version of this legend, from a rare tract entitled, The Famous Historic of Friar Bacon, 4to. Lond. 1652; with the pendent, shows how little the story has to do with the veritable history of Bacon, although he is more popularly known by this fictitious fame than by his real merit. Friar Bacon, it is pretended, discovered, "after great study," that if he could succeed in making a head of brass, which should speak, and hear it when it spoke, he might be able to surround all England with a wall of brass. By the assistance of Friar Bungay, and a devil likewise called into the consultation, he accomplished his object, but with this drawback—the head when finished, was warranted to speak in the course of one month; but it was quite uncertain when; and if they heard it not before it had done speaking, all their labour would be lost. After watching for three weeks, fatigue got the mastery over them, and Bacon set his man Miles to watch, with strict injunctions to awake them if the head should speak. The fellow heard the head at the end of one half hour, say "Time is;" at the end of another, "Time was;" and at the end of another half-hour,

> \* New General Biograph. Dict. 1840. † Halliwell's Rara Mathematica, p. 114, &c.

"Time 's past;" when down it fell with a tremendous crash, but the blockhead of a servant thought that his master would be angry if he disturbed him for such trifles! "And hereof came it," says the excellent Robert Recorde, "that fryer Bacon was accompted so greate a negromancier, whiche never used that arte, (by any conjecture that I can fynde,) but was in geometrie and other mathematicall sciences so experte, that he coulde doe by them suche thynges as were wonderful in the sight of most people "."

Bacon died at Oxford, in the year 1292; where existed, nearly until our own times, a traditionary memorial of "the wonderful doctor," as he was styled by seme of his contemporaries. On Grandpont, or the Old Folly Bridge, at the southern entrance into Oxford, stood a tower called "Friar Bacon's Study," from a belief that the philosopher was accustomed to ascend this building in the night, and "study the stars." It was entirely demolished in 1776. Of the bridge, Wood says: "no record can resolve its precise beginning."

The resemblance between Roger Bacon and his illustrious namesake Chancellor Bacon has scarcely been noticed by the historians of his period: it has, however, not escaped Mr. Hallam's observation, who adverts to it in his History of the Middle Ages. Whether Lord Bacon, he says, "ever read the Opus Majus, I know not; but it is singular that his favourite quaint expression, prerogativæ scientiarum, should be found in that work; and whoever reads the sixth part of the Opus Majus;

\* Pathway to Knowledge, 4to. Lond. 1551.

<sup>†</sup> The following detached passages of the Opus Majus, no doubt, contain opinions which Bacon was in the habit of expressing, and which must have rendered him especially obnexious to the clergy of his time :- " Most students have no worthy exercise for their heads, and therefore languish and stupify upon bad translations, which lose them both time and money. Appearances alone rule them, and they care not what they know, but what they are thought to know by a senseless multitude:-There are four principal stumbling-blocks in the way of arriving at knowledge-authority, habit, appearances as they present themselves to the vulgar eye, and concealment of ignorance combined with ostentation of knowledge. Even if the first three could be got over by some great effort of reason, the fourth remains ready .- Men presume to teach before they have learnt, and fall into so many errors. that the idle think themselves happy in comparison - and hence, both in science and in common life, we see a thousand falsehoods for one truth.-And this being the case, we must not stick to what we heard read, but must examine most strictly the opinions of our ancestors,

upon experimental science, must be struck by it as the prototype in spirit of the Novem Organia. The same sunguine, and sometimes tash, confidence in the effect of physical discoveries; the same footbase for experiment; the same preference of inductive to abstractive reason, pervade both works."

# BU INHAM OF BIR WALLDE HALBIUM:

This term El Danda is commandy considered to have been the sovereignty beaming with precious metals, which had body been cought for in value by Spanish adventurers. Their expectations in quest of it were directed to the instant of the vast region lying between the Orinoco and the Amazon, or tiniana. The rocks were represented as impregnated with gold, the veins of which lay so near the smiles, as to make it chine with a dessing resplentency. The capital, Manna, was said to consist of bouses covered with plates of gold, and to be built upon a vast lake, named Parima, the sands of which were suffered.

The term lef thumbs was but, however, originally used in designate any portionar place: it signified generally Assuriling to some if was first tool to denute a religious ceremony of the natives, in covering the amointed heats with gold dust: The whole of Uniona was, on assume of the alove neares, empelimes designated by the term to trambe, but the booting of the fable which came to atte tumulate that manns, was successfully assumed to different quarters of that east teping, and the equalitions in search has been by tasassint, milicantically shuffingen hatres it his to whenes arrow the fallet that a district on markethands rational will all haloles elalam similary anti dily tradunata of thilans; and the adultion appears to have been left to While soldering the confittee upon the Oppose Chimon, his was inhammed that this portion of Lastern Christia Iying between the rivers Gasennilla and

that we may not being to lacking and possess what is retitional, but, allfull makes, and placeans. We made, with all last offerestly, as the constant posterior reason to contain, and the applicance of the constant posterior for the constant of the constant by the first posterior of the constant contains and the constant posterior of the constant posterio

Branco is "the classical soil of the Dorado of Parima." In the islets and rocks of mica, slate, and tale which rise up within and around a lake adjoining the Parima river. reflecting from their shining surfaces the rays of an ardent sun, we have materials out of which to form that gorgeous capital, the temples and houses of which were overlaid with plates of beaten gold. With such elements to work upon, heated fancies, aided by the imperfect vision of distant and dubious objects, might easily create that fabulous superstructure. We may judge of the brilliancy of these deceptious appearances, from learning that the natives ascribed the lustre of the Magellanic Clouds, or nebula of the southern hemisphere, to the bright reflections produced by them . There could not well be a more poetical exaggeration of the lustrous effects produced by the metallic hues of rocks of talc. These details, in which M. de Pons, a somewhat later traveller, who long resided in an official capacity in the neighbouring countries, fully concurs, in all probability point to the true origin of this remarkable fable. The well-known failure of Raleigh did not discourage other adventurers, who were found in quick succession; the last always flattering themselves with the hope that the discovery of El Dorado would ultimately be realised+.

#### CREDULITY OF GREAT MINDS.

Or things palpably fabulous in our eyes, it is not enough to say that they could not possibly be believed by this or that man of great intellectual endowments. absurd conclusions would not this principle carry us! We should be obliged by it to hold that no instructed man ever believed in witchcraft, in judicial astrology, or the philosopher's stone! If the steady mind of the great discoverer of America could be seduced by the belief that he had there found the site of the terrestrial paradise; and if Raleigh could seriously discuss the question, as he does, in his History of the World, whether that site ought not rather to be sought near the orb of the moon, he might well be allowed also to believe in El Doraco, without prejudice either to his sincerity or mental sanity. half as extraordinary that Raleigh should, in his day, believe in the fables in question, as it was that Dr. Johnson

<sup>\*</sup> Humboldt.

<sup>†</sup> Edinburgh Review, abridged.

- Park

should, in his, believe in the second-sight? It has been justly observed by this vigorous thinker, that "it is the great failing of a strong imagination to catch greedily at wonders."

#### THE FLOWER-DE-LUCE.

ALTHOUGH the Iris is not considered as a lily, the French have given it the name of one: it is the Fleur-delis which figures in the arms of France. The Abbé La Puche, in Le Spectacle de la Nature, gives the following conjectural origin of this name :- " The upper part of one leaf of the lily, when fully expanded, and the two contiguous leaves beheld in profile, have," he observes, " a faint likeness to the top of the Flower-de-Luce: so that theoriginal Flower de-Luce, which often appears in the crowns and scentres in the monuments of the first and second race of kings, was, most probably, a composition of these three leaves. Lewis the Seventh, when engaged in the second crusade, distinguished himself, as was customary in those times, by a particular blazon, and took this figure for his coat of arms: and as the common people generally contracted the name of Lewis into Luce, it is natural," says the Abbé, "that this flower was, by corruption, distinguished in process of time by the name of Flower-de-Luce." But some antiquaries are of opinion that the original arms of the Franks were three toads; which, becoming odious, were gradually changed, so as to have no positive resemblance to any natural object, and named Fleur-de-Lys\*.

### PEDLAR'S AORE.

The well-known piece of ground at Lambeth, known by this name, is traditionally said to have been bequeathed to the parish by a Pedlar, upon the condition that his picture, with that of his dog, should be perpetually preserved in glass, in one of the windows of the church; and in the south window of the middle aisle, such a picture exists. It has been suggested, however, and with greater probability, that this portrait was intended rather as a rebus upon the benefactor (Chapman), than as descriptive of his trade: for in the church at Swaffham, in Norfolk, is the portrait of John Chapman, a great benefactor to that parish; and the device of a pedlar and his pack occurs

<sup>\*</sup> Flora Domestica, pp. 205-206.

in several parts of the church; which circumstance has given rise to nearly the same tradition at Swaffham as at Lambeth\*. Besides, Pedlar's Acre was not originally so named; but was called the Church Hope, or Hopys; and is stated in the register to have been bequeathed by "a person unknown."

### VAUNHALL AND GUY FAWKES.

There does not appear to be the least ground for the tradition that Vauxhall, or Fauxhall, was the residence of Guy Fawkes, except the common coincidence of names. Jane Vaux. or Faukes, mentioned in the History of Lambeth as holding a copyhold tenement at Vauxhall in the year 1615, was the widow of John Vaux. The infamous Guy, or Guido, was a man of desperate fortune, and not likely to have a settled habitation anywhere, much less a capital mansion. It appears, however, that the conspirators of the detestable plot in which he was concerned, held their meetings in Lambeth, at a private house, which was accidentally burnt in the year 1635†.

### THE STAR CHAMBER,

The origin of the name of this infamous Court has been much disputed; but Mr. Caley has satisfactorily traced it to the ceiling of the chamber being ornamented with gilded stars. Barrington's reference is to Stor or Storrum, a Jewish contract in ancient contracts.

#### ERA AND EPOCH.

Much confusion frequently occurs in the use of these terms among chronologers: the accurate use is as follows:—

Era is any indefinite time; period is a time included between two dates. The beginning and end of the period are epochs, though in common parlance, epoch is generally confined to events of some distinction.

### THE FIRST ENGLISH MONARCH.

The claims of Egbert to have been the first Monarch of all England, are, says Sharon Turner, "unquestionably surreptitious. The competition can only be between Alfred and Athelstan. Our old chroniclers vary on this

Preface to Hearne's Edition of Cali Antiquitates, p. 84.
 † Lysons.

subject: some denominate Alfred the first monarch; some give it to Athelstan. The truth seems to be, that Alfred was the first monarch of the Anglo-Naxons, but Athelstan was the first monarch of England. The Danish sovereigns to whose colonies Alfred close, or was compelled, to yield Northumbria and bast Anglia, divided the island with him; therefore, though he first reigned over the Anglo-Naxons, from the atter destruction of the octarchy, it was not till Athelstan completely subjugated the Anglo-Danish power, that the monarchy of England arose."

### " OLD ENGLAND!

This is a mismoner, as applied to our own country. The Jutes and Angles, two of the three tribes of Germans by whom Britain was subtued, dwelt in the peninsula of Jutland, and in the adjoining Holstein, where there is still a district called Jugles. That, in fact, is the real Old England; and, properly speaking, our "Old England" is New England, though we have given that name to a state of North America.

# WHATING LIBERS ON BY: HAVIN'S HAV:

The adoption of the look as the national emblem of Wales, and the custom of wearing it on the 1st of March, are traditionally referred to the following story: On the Ist of March, in the year (140), the Maxons being about to attack the flettons, put looks in their caps, in outer, if dispersed, to be brown to each other; but the Britims having gained the victory, transferred the leeks to their own caps, as signals of triumph. Mr. Brand adds, that the general commanding the Britons was vulgarly named hit. David hir hannel Meyrich considers the above, "like many other traditions, to have been invented for the mones;" and we incline to his opinion; more especially as there is nothing to warrant this belief in the high anti-" Not one of the Welsh lands, quity of the custom. though there exists a tolerable series of their compositions from the fifth century till the time of Elicabeth, has in any manner attented to the leek as a national emblem. Even at the present day, the enstone of wearing leeks on the 1st of March is confined to the members of modern clubs. But the Harleian MB., No. 1977, written by a Welshman, of the time of James I., contains the following passage:

"I like the leek above all herbs and flowers; When first we wore the same, the field was ours. The leek is white and green, whereby is meant. That Britons are both stout and eminent: Next to the lion and the unicoru. The leek 's the fairest emblem that is worn!

"Now, the inference to be drawn from these lines is, that the leek was assumed upon, or immediately after, the battle of Bosworth-field, which was won by Henry VII., who had many Welshmen, (his countrymen.) in his army, and whose yeomen guard was composed of Welshmen; and this inference is derived from the fact, that the Tudor colours were white and green; and, as may be seen in several heraldic MSS., formed the field on which the English, French, and Irish arms were placed. 'The field was ours,' alludes to the victory, of course, as well as to the heraldic field.

"This view of the case would account for the leek being only worn by Welshmen in England, and its having been a custom of comparatively modern origin in the time

of Shakspere "."

Yet, this correction of a Popular Error may be, in some degree, invalidated by the leek being a native of Switzerland, and, according to the *Hortus Kewensis*, not introduced into England till about the year 1562.

# SHAKSPEARE'S PLAY OF HENRY V.

The extraordinary confusion of place and time pervading the Second Part of King Henry IV., is only equalled by the mistaken view which the writer gives of the character of Henry of Monmouth. News of the overthrow of Archbishop Scrope is brought to London on the very day on which Henry IV. sickens and dies; whereas, that king was himself in person in the North, and insisted upon the execution of the archbishop, just eight years before.

<sup>\*</sup> Communicated to the Pietorial Shakspere: Henry V., Illustrations of Act V. p. 284: "But why wear you your leek to day? St. David's Day is past."—Scene I. Again in Act IV. scene 7. Flucilen says to the king: "If your majestics is remembered of it, the Welshmen did goot service in a garden where leeks did grow, wearing leeks in their Monmouth caps; which your majesty knows, to this hour, is an honourable padge of the service; and I do believe your majesty takes no scent to wear the leek on Saint Tavy's Day."

The archbishop was beheaded on Whit-Monday, (June 8). in the year 1405. Henry IV. died March 20, 1413. instead of Henry, the prince, being either at Windsor, hunting, or in London with Poins and others, his continual followers, when his father was depressed and perplexed by the rebellion in the North, he was doing his duty well, gallantly, and to the entire satisfaction of his father. We have a letter, dated Berkhampstead, March 13, 1405, written by the king to his council, with a copy of his son Henry's letter, announcing the victory over the French rebels at Grosmont, in Monmouthshire, which was won on Wednesday, the 11th of that month. The king writes with great joy and exultation, bidding his council to convey the glad tidings to the mayor and citizens of London, that "they (he says) may rejoice with us, and join in praises to our Creator." Thus, does history prove, that in every instance of Shakspeare's fascinating representations of Henry of Monmouth's practices, the poet was guided by his imagination, which working only on the vague tradition of a sudden change for the better in the prince, immediately on his accession, and magnifying that change into something almost miraculous, has drawn a picture which can never be seen without being admired for its life, boldness, and colouring; but which, as an historical portrait, is not only unlike the original, but misleading and unjust in essential points of character."

# JOHN THE BAPTIST'S LOCUSTS.

When the Locust-tree is named, and its pods said to be a palatable article of food, an impression is very commonly made on the mind of the hearer, who has forgotten his Greek, that this vegetable locust must have been the food on which, with wild honey, John the Baptist lived in the wilderness; and persons often lament their stupidity in having ever supposed that it could have been a nasty insect - but such it was. "And his food was locusts (akrides) and wild honey." Bochart has proved that the insect locusts have been caten by many nations in Africa and Asia, both in ancient and modern times. indeed, no doubt about the word akris, which means the insect; and the mistake has arisen from the English The word arbah, or locust, of the Old names alone. Testament, is translated ahris in the Septuagint Greekt.

<sup>\*</sup> Tyler's Life and Character of Henry V † Literary Gazette.

### ROMULUS AND REMUS.

The two brothers, Romulus and Remus, were suckled by a wolf\*. The truth was, that the good woman's name, who took them to her breast, was Lupa. "Sunt," says Livy, "qui Larentiam vulgato corpore Lupam inter pastores vocatam putent: unde locum fabulæ ac miraculo datum."

### DRUIDICAL CIRCLES.

Concerning the many Druidical stones to this day remaining in Great Britain, the popular superstition prevails, that no two persons can number the stones alike, and that no person will ever find a second counting confirm the first. Dr. Southey, speaking of the Druidical stones near Keswick, says: "My children have often disappointed their natural inclination to believe this wonder, by putting it to the test and disproving it."

The puerilities of antiquarian zeal we suspect to be often demolished by the powerful battery of science. Thus, Professor Buckland laughs at the antiquaries notions of the above Druidical stones, which have been stolen from the irregular surface wells, (pits in chalk,

puits naturels,) of the geologists.

### THE MINSTER.

The word minster, in Saxon, minstre, from the Latin monasterium, we apply, generally, to our collegiate churches as when we say, York-minster, or Ripon-minster; yet these churches are, at present, very far from having anything of the nature of monasteries.

# ORIGIN OF "WHIG" AND "TORY."

Considerable Error prevails respecting the Origin of these terms, which has lately been thus satisfactorily corrected by a Correspondent of the Athenæum:—"No two writers have agreed respecting the origin or etymology of the terms Whig and Tory, which have become so universally known. There is still room for conjecture; and it is the more interesting to ascertain the real cause of these famous designations, as it is not improbable they may shortly disappear from the face of our future history, giving place

\* See Livy, lib. L

Rapin, in his Disto those of Liberal and Conservative. sertation sur les Whige et les Torye, 1717, p. 34, says, that the term Tory was first applied to certain brigands or outlaws of Ireland, in the time of Charles I., and that the same banditti were known in his time under the name of Rapparees; and he adds farther, p. 45, that the Cavaliers became distinguished in the reign of Charles H. by the appellation of Tories, and the Roundheads under that of Whigs, though he cannot precisely tell at what period of that reign this took place. This statement of a fact does not throw any light on the meaning of the words. No person conversant with the Gaëlic language appears to have attempted their explanation; but the terms being neither English nor Scottish, their signification must be sought for in that language. The Irish partisans of Sir Phelim O'Neal called themselves, and were designated by others, as the King's friends or party, that is Taobh Righ, pronounced Taorie, a word equally used by the same party in the Highlands of Scotland. The word Co-thuigse, pronounced shortly Cuigse, is also a Caëlie term, and is applied to persons who mutually understand each other, who think alike on a given subject, people who enter into a compact to defend an opinion in fact, Covenanters. It is, indeed, the most expressive and definite term that could be found for persons entering into a covenant against It amounts almost to a demonstration that the the law. above derivation of Whig is correct, from the fact that it was first imposed when the 'Highland Host,' as it was called, was brought down and quartered on the Covenanters of the west of Scotland. The word was readily adopted by the more unmerciful soldiers of the Low country; but the persecuted people, to whom it was applied as a stigma, took pride in it; and it was ultimately adopted by the supporters of liberal principles, and the preachers of similar feeling, both in England, Scotland, and Ireland. markable, that terms of so local and limited a character should finally become the designations of the two political parties so long known in these kingdoms, and, arising among the enthusiasts of a corner of the empire, should become widely spread, even beyond the limits of Europe and America.

It should be added that in the explanation of "Tory," the writer of the preceding had been anticipated by Mr

George Olaus Borrow, who in the year 1832, communicated to the Norfolk Chronicle, a paper of interesting research upon the subject of dispute. Mr. Borrow, who has devoted his attention specially to the Celtic dialect, suggests that "Tory may be traced to the Irish adherents of Charles II., during the Cromwellian era. The words Tar a Ri. pronounced 'Tory,' and meaning, Come, O King, having been so constantly in the mouths of the Royalists as to have become a bye-word to designate them."

### THE GOODWIN SANDS.

The southern boundary of the Downs, opposite Deal, and known as the Goodwin Sands, have in their history two or three notable Errors. There was a popular opinion for ages that these Sands possessed "a voracious and ingurgitating property; so that should a ship of the largest size strike on them, in a few days it would be wholly swallowed up by these quicksands, so that no part of it would be left to be seen." Shakspeare probably alludes to this belief, when in the Merchant of Venice, act 3, scene i., Salarino refers to "a ship of rich lading wrecked on the narrow seas,—the Goodwins, I think they call the place; a very dangerous flat and fatal, where the carcasses of many a tall ship lie buried." More accurate observers have, however, found the sand to be of the same quality as that of the opposite shore.

Tradition, grounded upon some Monkish Annals, represents, these Sands as having been formerly an island, belonging to the great Goodwin, Earl of Kent; and that "it sonke sodainly into the sea," as a mark of the vengeance of Heaven against the sins of that nobleman, A.D. 1097. Others, with greater probability, consider it to have been a shallow, previously covered with a depth of water sufficient to admit the passage of vessels over it, but made bare about the above-mentioned period by the accumulation of

A more absurd Error remains to be explained, viz., the ancient saying that " Tenterden Steeple was the cause of Goodwin Sands," or, in other words, that these Sands first appeared in the year that Tenterden church was erected. It would rather seem, from the Dialogues of Sir Thomas More, that the adage was first applied to the decay of Sandwich Haven, the funds for the preservation of which

sand.

are represented to have been expended by the monks in erecting the steeple of Tenterden church: and if we credit Fuller, who says "it was erected by the Bishop of Rochester with a collection of money that had been made to

fence against the sea in East-Kent."

The belief in "the ingurgitating property of the Sands" will also be shaken by the fact of a Safety Beacon having been erected upon them in the year 1840. It consists of a column about forty feet above the level of the sea; the foundation being several feet below the surface of the sand.

### PERSECUTION OF THE JEWS.

"One of the causes of the Persecution of the Jews arose from a notion that they killed the children of Christians, in order to use their blood in medicine. Gower, (in his second book De Confessione Amantis,) states it to have been prescribed to Constantine for the cure of his leprosy, but that he refused to try the medicine, and for that piety was miraculously healed:

'The would him bathe in childes bloode, Within seven winters' age, For as thei sayen, that shulde assuage The lepre.'

F. 45. B.

"A notion still (1769) prevails in Austria, that when a criminal is beheaded, the blood, drank immediately that it springs from the neck, is a certain cure for the falling sickness. Brown, who mentions this, was an eye-witness to its being received in a jug for the above purpose\*."

The Jews have likewise been charged with using human blood as an ingredient of the food compounded for the Passover festival. This abominable charge was revived in the year 1840, and gave rise to the disgraceful persecution of certain Jews at Damascus; but, for the honour of humanity, the atrocious accusation has been satisfactorily refuted, and proved altogether groundless. Mr. Salomons, who has written a small volume upon this painful subject, argues that—"The strict injunction against the use of blood in food is ever regarded as one of the highest importance by those who adhere to the principles of the Jewish religion. Were it possible to imagine, for a moment, that the Jew

<sup>\*</sup> Travels, p. 155, quoted by Barrington, Observ. on the More Ancient Statutes, pp. 199, 200.

could be so lost to every feeling of nature, as to engage in a murder for the attainment of any ordinary purpose whatever, it may be safely asserted that, dependent as the Jews are entirely on their religious teachers, it would be an entire violation of all their principles to interfere in any matter connected with religious objects, without the express direction of their rabbinical au-The remark, therefore, lightly made, that superstitious, fanatical Jews may, in a spirit of Eastern bigotry, do what other persons of the same faith, but not imbued with the same sentiments, would hesitate to commit, is quiet fallacious. A total ignorance of the nature and structure of the Jewish religion is exhibited by those who make this observation. The Jew receives from his priest, or rabbi, the exposition of the principles which should regulate his moral and religious conduct. The rabbi himself has no authority, except to administer the law as it is written; he has no power to make any change, either in the oral or traditional law; neither can he introduce any new construction, by which the defined rule of religious conformity may be undermined. \*\*Since therefore, the use of blood is prohibited by the Law, all the care of the rabbi has been directed to prevent, by minute restrictions, the possible intrusion of the smallest particle of blood into any kind or description of food; and this practice prevails wherever the Jewish code is in operation. The ecclesiastical precautions always adopted to insure the purity of the Passover diet, and that it should be composed of the best and simplest materials, are conducted with the severest scrutiny, in obedience to a written code, and are extremly minute and The Passover food consists of a mixture of the finest flour with the purest water, to form biscuit, or unleavened bread, and it is eaten in reference to the Divine command, to observe the Passover, in commemoration of the deliverance from the land of Egypt." (Exodus, chap. xii. 15 ".)

The antipathy of the Jews to Pork is thus noticed by Sir Thomas Browne:—"The Jews abstained, at first, from swine symbolically, as an emblem of impurity; and not for fear of leprosie, as Tacitus would put upon them†."

† Vulgar Errors, b. iii. c. xxv. p. 192.

<sup>\*</sup> An Account of the Recent Persecutions of the Jews at Damascus Ry D. Salomons, Esq. 1840.

## JEWS EAR.

In old books of receipts, such as interested the Lady Bountifuls of other times, we read of "a Jew's Ear' prescribed as a domestic medicament: to wit, in a strange farrago, entitled One Thousand Notable Things. readers have, doubtless, smiled at the oddity and apparent absurdity of the expression, from not being aware of its "In Jews' Ears," says Sir Thomas actual meaning. Browne, "something is conceived extraordinary from the name, which is, in propriety, but Fungus Sambucinus, or an excrement about the roots of Elder, and concerneth not the nation of the Jews, but Judas Iscariot, upon account that he hanged himself on this tree; and it has become a famous medicine for quinsies, sore throats, and strangulations, ever since. And so are they deceived in Horse-Radish, Horse-Mint, and Bull-rush, and many more: conceiving therein some prenominal consideration, whereas. indeed, that expression is but a Gracism, by the prefix of Hippos and Bous -- that is, Horse and Bull -- intimating no more than Great \*."

### EDWARD THE BLACK PRINCE.

"The story of Edward being called the Black Prince, from the colour of his armour, rests on no better authority than Barnes, who in his Life of Edward III., merely says: ' Edward, the young Prince of Wales, whom, from this time, the French began to call Le Neoir, or the Black Prince,' and quotes apparently, a certain chapter of Froissart, in which, decidedly, there is no mention of any such title. At tournaments, he might have worn a sable surcoat. with ostrich feathers upon it, in accordance with his shield of peace, and the caparisons of his horse being of the same funereal huc, might have suggested the appellation; but it is equally probable that he was called 'the black, from the terror his deeds inspired in the bosoms of his enemies; and Æneas Sylvius, the historian of Bohemia, expressly says, 'On the feast of St. Ruffas, the battle of Cressy was fought between the French and the English; hence is that day still accounted black, dismal, and unlucky, which took away the lives of two kings by the sword of the enemy:' alluding to John, king of

<sup>\*</sup> Vulgar Errors, b, il, o, vil, p, 112.

Bohemia, and James, king of Majorca; the fall of the latter monarch is, however, disputed. The first mention of Edward as the Black Prince in England, occurs in a parliamentary paper of the second year of the reign of Richard II\*."

Barrington remarks: "I have somewhere read a passage in one of the old chroniclers, where Edward is styled the Black Prince before he had distinguished himself in arms; besides this, all princes and generals wore the same armour for the greater part of their campaigns, and yet we never hear of a Blue or a Red Prince. To this it may be added, that in England, where he seems to have obtained this appellation, he could seldom have had occasion to

wear armour of any colour +."

Mr. James, however, considers the colour of the surcoat to be the most probable method of accounting for Edward having received the name of Black Prince. "It was a very common custom of the times to designate knights by the colour of their arms; and, in some instances, the real name is almost entirely lost in the fictitious one. Thus, shortly after the days of the Black Prince, we find a person called the Green Knight, continually mentioned in the old chronicles, while his real name is scarcely to be met with f.

# "THE PRINCE OF WALES'S FEATHERS."

The assumption of a plume of three feathers by Edward the Black Prince, is commonly referred to their having been the crest, arms, or badge, of John, King of Bohemia, slain at the battle of Cressy; but this explanation is not traceable to any credible authority. It is first mentioned by Camden in his Remains, who says:—"The victorious Black Prince, his (Edward III.'s) sonne, used sometimes one feather, sometimes three, in token, as some say, of his speedy execution, in all his services, as the posts in the Roman time were called pterophori, and wore feathers, to signific their flying post haste; but the truth is that he wonne them at the battle of Cressy from John, King of Bohemia, whom he there slew." Yet, Camden does not state his authority for this "truth;" and neither Froissart,

Planché, History of British Costume, pp. 144—145.
 † Observ. on the More Ancient Statutes, p. 312.
 † History of Edward the Black Prince.

Walsingham, Knighton, not any contemporary historian, alludes to so interesting an incident. Sandford, in his Genealogical History, quotes Camden; but admits that, even in his time, it was a disputed point, by giving another and not very improbable derivation, circulated at that

period.

"The German motto, 'Ich Dien,' generally rendered I serve,' first seen upon the tomb of Prince Edward at Conterlary, has perhaps helped to give currency, if not give birth, to the belief of the Bohemian origin of the feathers; but Camden himself did not credit this part of the story, for he goes on to state, though still without quoting his authority, that to the feathers the prince himself adjoined the old English word is dien (thegn) that is, 'I serve;' according to that of the apostle,' the heir, while he is a childe, differeth nothing from a servant.'"

Mr. Planche, from whose History of British I'nstume we turne these details, emsiders there to be no reason for I dward's selecting a Derman motto, (for it is absord to call it old English), to express his own service to his father. Again, the crest of John of Bohemia was the entire wing or pinion of an engle, apparently from its shape, as may be seen on his seal, engraved in Olivarius Viedling, and not one or three distinct estrich feathers. In the same work, however, we meet with crests of wings or pinions surmounted by distinct feathers, and one or three such might have been blacked from the crest of the King of Bohemis, se a symbol of triumph; and granted as a memorial of victory and heraldic distinction by Edward III. But the silence of contemporary histo his gallant son. turious on the subject, and the fact of the feathers being burne simply by all the descendants of Edward 111. induce Mr. Planché to regard the three feathers as a fanciful hadge, adopted by the prince from easilies, or suggested by some very trivial circumstance, or quaint conceit, no longer recollected; as were hundreds of devices of that period, to account for which stories have been ingeniously invented in after ages, and implicitly believed from the mere force of repetition. Mr. Planche then hazards some conlectures; as, ostrich feathers being a symbol of equity among the Egyptians; next, the vulgar helief of the extenordinary digestive powers of the estrich has afforded a remarkable simile to a writer of Prince Edward's own

time, where he says, "many a hero, like the ostrich. (at Poictiers,) was obliged to digest both iron and steel, or to overcome, in death, the sensations inflicted by the spear and the javelin." Among the far-fetched conceits of the middle ages of Knighthood may be found more obscure and fantastical devices than an ostrich feather assumed in allusion to the bearer's appetite for, or mastery over, iron and steel. It should be added, that a writer in the Quarterly Review attributes the feathers to the banner of the King of Bohemia, "and not to the helmet, as is generally upposed."

### THE ORDER OF THE GARTER.

Every school-boy has read of the symbolical origin of the decoration which gave a name to the Order of the Garter, assigning it to the accidental fall of a lady's garter, (the Queen's or a Countess of Salisbury's,) at a grand festival; and the motto, "Honi soit qui mal y pense," to the gallant indignation of the monarch at the sneer of his courtiers. This popular tradition has been rejected as erroneous by most writers of credit. Sir E. Ashmole, in his History of the Order, considers the garter as a symbol of union; and in this opinion he is tollowed by Sir Walter Scott and Sir Samuel Meyrick. The above origin is not, however, entirely given up as a fable; for, to use the words of Hume, " although frivolous, it is not unsuitable to th. manners of the times; and it is, indeed, difficult by any other means to account either for the seemingly unmeaning terms of the motto, or for the peculiar badge of the garter, which seems to have no reference to any purpose either of military use or ornament." Mr. James considers that although the accounts long current of the amours of Edward III. and the Countess of Salisbury are proved to be false in so many particulars, "the whole tale becomes more than doubtful," and the statement which connects her name with the Order of the Garter is neither disproved "That a lady might accidentally drop nor improbable. her garter in the midst of the court is certainly within the bounds of possibility; and that a gallant and graceful monarch might raise it from the ground, and rebuke the merriment of his nobles by the famous words 'Honi soit qui mal y pense,' is not at all unlikely. Another story, however, is told by the famous historian of the order,

which is still more probable. The Queen herself is said to have met with the same accident on quitting the King on some occasion of ceremony. Several persons tred upon the blue riband, of which the garter was composed; and, at length, Edward himself raised it saying, he would employ that riband in such a way that men should show it greater reverence. He then carried it to the Queen, asking playfully what she imagined the court would think of such an occurrence, to which she made the famous reply which affords the motto of the order.

"It has been argued, that such an accident as the loss of a lady's garter was unworthy as a cause for so noble an institution; but matters of less import have often produced events of far greater consequence; and when Edward adopted a garter as the badge of an order he was about to found, he did not probably contemplate, at first, giving to that order all the solemnity which afterwards accompanied its progress. No suppositions of all the many which have been raised in regard to the origin of the order, offer so reasonable an explanation of the words embroidered on the garter; and as it was the common custom of chivalrous times for knights to carry, both into the lists and to the battle-field, any part of their lady's dress which could be obtained as a boon, the ordinary tale connected with the institution is well in harmony with the habits of the day "."

Lastly, we have yet to learn that garters were worn by men in the above days. There was no need of them; for the chausses or long hose were attached to the doublet, or at least, ascended to the middle of the thigh, where they were met by the drawers. It is, however, very probable that garters were then worn by the ladies, whose hose were, in shape, precisely the stockings of the present day.

### DEATH OF JANE SHORE.

Dr. Percy, in his Reliques of Ancient Poetry, has printed from an old black letter copy in the Pepys collection a ballad entitled "The Woful Lamentation of Jane Shore, a goldsmith's wife in London. sometime King Edward IV. his Concubine. To the tune of 'Live with me,'" &c. Herein the poet makes Jane die of hunger, after doing her penance:

<sup>\*</sup> History of Edward the Black Prince, vol. i.

"I could not get one bit of bread,
Whereby my hunger might be fed:
Nor drink, but such as channels yield,
Or stinking ditches in the field.
Thus weary of my life, at lengthe
I yielded up my vital strength,
Within a ditch of loathsome scent,
Where carrion dogs did much frequent:
The which now since my dying daye,
Is Shoreditch called as writers saye."

From this passage, the story of Jane Shore dying in a ditch, and thus giving name to Shoreditch, doubtless, became a Popular Error. This ballad is not considered to be older than the middle of the seventeenth century; and no mention is made of Jane so dying, in another ballad, by Th. Churchyard, dated 1587. Dr. Percy notes that Shoreditch had its name "long before, being so called from its being a common sewer, vulgarly shore, or drain\*." It was, however, named from the very wealthy and worshipful family of Sir John Shoreditch, who was lord of a manor called Shoreditch, long before Jane Shore was born. Shoreditch church was in this manor, and had its name from it.

Shore Place, at Hackney, is stated to have been named from its having been the site of the residence of Jane Shore; which idea is preposterous. Jane's father was never able to live in such a house, previous to her marriage with Shore; and then, probably, she was not more than sixteen or seventeen years old; she lived with him seven years; she then left him for Fdward IV., when, doubtless, she removed to, or near to, Westminster; perhaps she had apartments in the palace there. After that monarch's death, she lived in London; for the Sheriffs seized her goods, by command of Richard III., during whose reign she was a prisoner in Ludgate. When enlarged, stripped of all she possessed, she was so far from owning or renting a mansion, that she lived upon alms until her death.

The story of Jane's doing penance in Lombard-street is thus referred to in the first named ballad:—

"Then for my lewd and wanton life,

I penance did in Lombard-street, In shamefull manner in a sheet."

This is likewise a fiction; as is also the tale of a man being hanged for relieving Jane:—

\* See Stowe

"Yet one friend among the rest, Whom I before had seen distrest, And saved his life, condemn'd to die, Did give me food 'to succour me.' For which by lawe, it was decreed. That he was hanged for that deed. His death did grieve me so much more, Than had I dyed myself before. Then those to whom I had done good, Durst not afford me any food: Whereby I begged all the day, And still in streets by night I lay."

The fact is, Jane was lodged and fed in Ludgate, after her penance. (by order of Gloucester. in Cheapside,) and she survived that disgrace nearly half a century.

STATUE OF CHARLES I. AT CHARING CROSS.

A common Error prevails, which reflects on Le Sœur, the artist of this Statue, viz, that the horse is without a saddle-girth; but on a close inspection, one may certainly be discovered. To this misrepresentation it is sometimes added, that Le Sœur, having finished the statue, defied any beholder to point out a defect in his performance, when on a person detecting the absence of the girth, Le Sœur, in a flt of indignation, destroyed himself. Both stories are equally void of truth.

ANCIENT AND MODERN FREEMASONS.

THEY who take their notions of the original objects of Freemasonry from the Brethren of the present day, are lamentably in the dark .- " The connexion between the operative masons, and those whom, without disrespect, we must term a convivial society of good fellows-who, in the reign of Queen Anne, met at the 'Goose and Gridiron, in St. Paul his Church-yard, appears to have been finally dissolved about the beginning of the eighteenth cen-The theoretical and mystic, for we dare not say ancient, freemasons, separated from the Worshipful Company of Masons and Citizens of London about the period above-mentioned. It appears, from an inventory of the contents of the chest of the London Company, that, not very long since, it contained. A book wrote on parchment, and bound or stitcht in parchment, containing an 113 annals of the antiquity, rise, and progress of the art and mystery of Masonry.' But this document is not now to be found ."

\* Edinburgh Review

#### POPULAR IGNORANCE.

It is a general Error of the day to overrate the intelligence of the present day, and underrate our forefathers in the intellectual scale; for, although our Nomadic ancestors were long without the cultivation of knowledge and literature, they were not, therefore, mentally inert. "There is an education of the mind, distinct from the literary, which is gradually imparted by the contingencies of active life. In this, which is always the education of the largest portion of mankind, our ancestors were never The operation of practical, but powerful intellect, may be traced in the wisdom and energy of their great political mechanisms and municipal institutions. It pervades their ancient laws; and is displayed in full dimensions, as to our Saxon and Norman ancestors, in that collection of our native jurisprudence, which our Bracton has transmitted to us. The system of our common law there exhibited was admirably adapted to their wants and benefit; and has mainly contributed to form the national bulwarks, and that individual character, by which England has been so long enriched and so vigorously upheld \*."

### EARTHENWARE BOATS ASCRIBED TO THE EGYPTIANS.

JUVENAL describes the Boats of the Egyptians as if they were Earthenware. We are told that such earthenware ships were used on the Nile: that in the Delta, navigation was so easy, that some used boats of baked earth; that such were used in some of the other canals of Egypt; and that they are called pietæ (painted), because these boats of baked earth were marked with various colours.

Now, all this appears very strange. That earthenware may be so made as to swim, is easily understood: the experiment may be made at any tea-table, by putting one of the cups into a basin of water. But that a boat, of a size to be of any use to the Egyptians, should be made of such materials, and commonly to be seen in the Delta, and other canals of Egypt, appears incredible, since they must have been of earth beked or burnt in the fire, which could only be done with difficulty; and where ffected, what a trifle

<sup>\*</sup> Sharon Turner, Hist. Anglo-Saxons.

would demolish them, and how unsafe must have been such

a navigation !

But all this is deciphered by modern travellers: for all that is meant is, that sometimes the Egyptians make use of rafts, which are made to float, by empty vessels of earthenware fastened underneath them.

"In order to cross the Nile." Norden tells us, "the inhabitants have recourse to the contrivance of a float, made of large earthen pitchers, tied close together, and covered with leaves of palm-trees. The man that conducts it, has commonly in his mouth a cord, with which he Ishes as he passes on." These are, undoubtedly, the Egyptian earthenware boats of Juvenal.

# VI.—VARIOUS SCIENCES.

### FALLACIES OF FIRST EXPERIMENTS.

It is a frequent Error with some Experimenters, with unfortunate precipitancy, to dignify as general laws the consequences which result from their first experiments. Sometimes, we have only to take up an instrument, and use it in some research, in order to stumble upon some new fact. But, in prosecuting the work with becoming assilluity, in varying our modes of experimenting, and in analysing the phenomena in different aspects, it will most generally be found, either that the novelry is only apparent, and that the true explanation may be found among the already established truths of science; or, if on the other hand it turns out to be a real discovery, it will almost invariably contradict those alleged general laws which first of all presented themselves to our minds with so much apparent certainty and clearness.\*

### THEORY AND PRACTICE IN MECHANICS.

THE primary importance of Theory has, in too many instances, led to the underrating of construction. It has been well observed, that "it is not sufficient to have a good

<sup>\*</sup> Comptes Rendus de l'Académie des Sciences, à Paris : M. Melloni,

theory; the powers of mechanical construction must be considered. Many inventions which, thirty years ago, might have been lost, because they were antecedent to the march of the mechanical art, would now, in the wonderfully advanced state of this art, be generally introduced\*."

## FALL OF A GUINEA AND FEATHER.

A LARGE body, or mass of many atoms, naturally falls with the same velocity as a smaller body or a single atom; for gravity pulls equally at each atom, and must overcome its inertia equally, whether it be alone or with others. This remark contradicts the popular opinion, that a large and heavy body should fall to the earth much faster than a small and light one; an opinion which has arisen from constantly seeing such contrasts as the rapid fall of a gold coin and the slow descent of a feather. The true cause of the contrast is, that the atoms of the feather are much spread out, so as to be more resisted by the air than those of the gold. If the two be let fall together in a vessel from which the air has been extracted, as in the common airpump experiments, they arrive at the bottom in exactly the same time; and even in the air, if the coin be hammered out into gold leaf, it will fall still more slowly than the feathert.

### PERPETUAL MOTION SEEKERS.

What an infinity of vain schemes for Perpetual Motion, and new mechanical engines of power, &c., would have been checked at once, had the great truth been generally understood, that no form or combination of machinery ever did or ever can increase, in the slightest degree, the quantity of power applied. Ignorance of this is the hinge on which most of the dreams of mechanical projectors have turned. The frequency, and eagerness, and obstinacy, with which even talented (!) individuals, owing to their imperfect knowledge of this part of natural philosophy, have engaged in such undertakings, is a remarkable phenomenon in human nature‡.

#### SOUND AND NOISE.

Philosophers make this distinction between Sound and Noise:—Those actions which are confined to a single shock upon the ear, or a set of actions circumscribed within such

\* Proc. Brit. Assoc. 1838. † Dr. Arnott's Elements of Physics . ‡ Ibid.

limits as not to produce a continued sensation, are called a noise; while a succession of actions, which produce a continued sensation, are called a sound.

### SOURCE OF SALE IN SEA-WATER.

Ir has been supposed by some naturalists, that the Salt in the Sea has been gradually augmented by saline particles brought into it by rivers; but this cause is totally inadequate to explain the immense quantity of salt existing in the whole mass of the ocean. If the average depth of the sea be ten miles, and it contain two and a half per cent of salt, were the water entirely evaporated, the thickness of the saline residue would exceed 1000 feet.

# COMPONENTS OF SWEET AND BITTER.

DR. W. HERSCHEL has discovered, that the mixing of nitrate of silver with hypo sulphate of soda, both remarkably bitter substances, produces the sweetest substance known; a proof how much we are in the dark as to the manner in which things affect our organ of taste. So, Bitter and Sweet, as well as sour, appear not to be an essential quality in the matter itself, but to depend on the proportion of the mixtures which compose it.

### CONVERSIONS OF CAMEOS AND INTAGLIOS

The same indetermination of judgment which causes a drawing to be perceived by the mind as two different figures, frequently gives rise to a false perception when objects are regarded with a single eye. The apparent Conversion of a Cameo into an Intaglio, and an intaglio into a cameo, is a well-known instance of this fallacy in vision; but the fact does not appear to Professor Wheatstone to have been correctly explained, nor the conditions under which it occurs to have been properly stated.

This curious illusion was first observed at one of the early meetings of the Royal Society. Several of the members looking through a compound microscope of a new construction, at a guinea, some of them imagined the image to be depressed, while others thought it to be embossed, as it really was. Professor Gmelin, of Wurtemburg, published a paper on the same subject in the Philosophical Transactions for 1745; his experiments were made with telescopes

<sup>#</sup> Hakewell,

and compound microscopes, which inverted the images; and he observed that the conversion of relief appeared in some cases and not in others, at some times and not at others, and to some eyes and not to others. He endeavoured to ascertain some of the conditions of the two appearances; "but why these things should so happen,"

says he, "I do not pretend to determine."

Sir David Brewster accounts for the fallacy in the following manner: "A hollow seal being illuminated by a window or candle, its shaded side is, of course, on the same side with the light. If we now invert the seal with one or more lenses, so that it may look in the opposite direction, it will appear to the eye with the shaded side furthest from the window. But, as we know that the window is still on our left hand, and as everybody with its shaded side furthest from the light must necessarily be convex or protuberant, we immediately believe that the hollow seal is now a cameo or bas-relief. The proof which the eye thus receives of the seal being raised overcomes the evidence of its being hollow, derived from our actual knowledge and from the sense of touch. experiment, the deception takes place from our knowing the real direction of the light which fulls on the seal; for if the place of the window, with respect to the seal, had been inverted, as well as the seal itself, the illusion could not have taken place. The illusion, therefore, under our consideration is the result of an operation of our own minds, whereby we judge of the forms of bodies by the knowledge we have acquired of light and shadow. Hence, the illusion depends on the accuracy and extent of our knowledge on this subject; and while some persons are under its influence, others are entirely insensible to it\*."

These considerations, (observes Professor Wheatstone,) do not fully explain the phenomenon, for they suppose that the image must be inverted, and that the light must fall in a particular direction; but the conversion of relief will still take place when the object is viewed through an open tube without any lenses to invert it, and also when it is equally illuminated in all parts. The true explanation Professor Wheatstone believes to be the following: "if we suppose a cameo and an intaglio of the same object, the elevations of the one corresponding ex-

<sup>\*</sup> Natural Magic, pp. 100-102.

actly to the depressions of the other, it is easy to show that the projection of either on the retina is sensibly the same. When the cameo or the intaglio is seen with both eyes, it is impossible to mistake an elevation for a depression; but when either is seen with one eye only, the most certain guide of our judgment, viz. the presentation of a different picture to each eye, is wanting; the imagination, therefore, supplies the deficiency, and we conceive the object to be raised or depressed according to the dictates of this faculty. No doubt, in such cases, our judgment is, in a great degree, influenced by accessory circumstances, and the intaglio or the relief may sometimes present itself according to our previous knowledge of the direction in which the shadows ought to appear; but the real cause of the phenomenon is to be found in the indetermination of the judgment, arising from our more perfect means of judging being absent.".

### MINERAL TALLOW.

Ar one of the sittings of the Academy of Dijon, in 1817, M. Ballot gave, on the authority of M. Hermann, at Strasburg, the following explanation of a fact in Natural History, which on the credit of that celebrated naturalist had been received for the preceding forty or fifty years in many elementary books of science:—

In the year 1764, the father of the naturalist Hermann visited, for the recovery of his health, the baths of Bar . when he remarked upon the surface of the water, a fat substance, resembling melted tallow. He sent an account of this observation to his son, who wrote on the subject to Gueltard, in Paris. The latter read Hermann's letter in Some time after, Hermann the \cademy of Sciences, convinced himself that this pretended Mineral Tallow was a mere cheat of the cunning attendant of the bath, who, in order to produce his master's baths more customers, threw balls of clay and tallow into the copper. The Strasburg naturalist immediately informed his Paris correspondent of this, and begged him to destroy his first com-Gueltard read this second letter to the munication. Academy, and here the matter rested for the time.

Ten years later, Hermann, to his great surprise, found his original observation printed under his name in the

<sup>\*</sup> Phil. Trans. part 15, 1838,

Journal de Physique for May 1774; but he was still more surprised to find it also in Kirwan's Elements of Mineralogy, from which it was copied into other works; so that, for instance, Gmelin, in his edition of Linnæus's System of Nature (t. 2. p. 18), mentioned the newly discovered substance under the name of "Bitumen Sævum." In spite of Hermann's repeated protestations, this gross error continued to be propagated, and is still received as truth—so difficult is it to eradicate errors that have once taken root.

### MICROSCOPIC ILLUSIONS.

OBSERVERS with the Microscope should be particularly on their guard against illusions of this kind. Raspail has detected, that the hollow pyramidal arrangement of the crystals of muriate of soda appears, when seen through a microscope, like a striated pyramid in relief. He recommends two modes of correcting the illusion. The first is, to bring successively to the focus of the instrument the different parts of the crystal; if the pyramid be in relief, the point will arrive at the focus sooner than the base will; if the pyramid be hollow, the contrary will take place. The second mode is to project a strong light on the pyramid in the field of view of the microscope, and to observe which sides of the crystal are illuminated; taking, however, the inversion of the image into consideration, if a compound microscope be employed.

### THE BAROMETER.

Owing to its faulty construction, the domestic wheel Barometer is getting into sad disrepute. A little consideration will show that its results must be of trifling worth. A small column of mercury is acted on by every fluctuation in an elastic gaseous medium; and can we suppose this delicate action can take place, if we load the mercury with the additional task of working a clumsy piece of mechanism, constantly getting out of order; and, when in its best trim, requiring a force of atmospheric pressure, peshaps, nearly equivalent to the tenth of an inch, to overcome the inertia?

Nouveau Système de Chimie Organique, 2me edit. t. l. p. 333.
 † Professor Wheatstone: Phil. Trans. pt. ii. 1838.

### THE BAROMETER AND THE WIND.

THE older natural philosophers have erroneously ascribed the state of the Barometer to fine or bad weather; whereas the direction of the Wind is the ascertained cause; in connexion with which stand, on the one hand, the temperature and pressure of the air, and on the other, the cloudiness and serenity of the sky. Now, the barometer is not low during rainy weather because it rains; but because the south winds blow, which are not only moist, but at the same time warm. If we had not the Atlantic ocean to the south-west, but an extensive sandy desert in its stead, the barometer would, under these circumstances, still sink, but the sky would be clear.

# PROGNOSTICATIONS OF HAIN,

BEFORE we can predict the weather satisfactorily, an accurate knowledge of the whole atmosphere above us is requisite; which, from the very nature of things, is perfeetly impracticable in reference to temperature and Travellers have shown us how these relations change, as we proceed from the lower to the upper strata of the atmosphere; but these investigations relate to the mean state of the atmosphere, and very important errors are possible when they are applied to particular cases. We know, (to adduce only one example), that during a certain mean state of the hygrometer, rain generally takes place; the barometer sinks at the same time, and the probability of the precipitation becomes greater, especially if the sky begins to be obscured by clouds. But, in order to predict with certainty if it will rain or clear up, a knowledge of the temperature of the upper region is requisite; and as this is wanting, there must always be a great degree of uncertainty in our prognostications. Supposing the temperature at a height of 10,000 feet to be some degrees lower than usual, a great precipitation would be the consequence; whereas, if the temperature should rise an equal number of degrees, the sky would clear up with rapidity +.

### DIFFERENT PRISPECTIVES OF THE EVES.

PLACE on object so near the eyes, that to view it the optic axes must converge, and a different perspective projection of it will be seen by each eye; these perspectives

<sup>\*</sup> From the German of Professor Kaemts. | 1 1bid.

being more dissimilar as the convergence of the optic axes becomes greater. This fact may be easily verified by placing any figure of three dimensions, an outline cube for instance, at a moderate distance, (say seven inches,) before the eyes; and while the head is kept perfectly steady, viewing it with each eye successively, while the other is The appearances, which are, by this simple experiment, rendered so obvious, may be easily inferred from the established laws of perspective; for the same object in relief is, when viewed by a different eye, seen from two points of sight at a distance from each other equal to the line joining the two eyes. Yet, they seem to have escaped the attention of every philosopher and artist who has treated of vision and perspective. Professor Wheatstone ascribes this inattention to the results being contrary to a principle which was very generally maintained by optical writers, viz.: that objects can be seen only when their images fall on corresponding points of the two retinæ; and if the consideration ever arose in their minds, it was hastily discarded under the conviction that if the pictures presented to the two eyes are, under certain circumstances, dissimilar, their differences must be so small that they need not be taken into account.

It will now be obvious why it is impossible for the artist to give a faithful representation of any near solid object; that is, to produce a painting which shall not be distinguished in the mind from the object itself. When the painting and the object are seen with both eyes, in the case of the painting two similar pictures are projected on the retina, and in the case of the solid object the pictures are dissimilar: there is, therefore, an essential difference between the impressions on the organs of sensation in the two cases, and, consequently, between the perceptions formed in the mind; wherefore, the painting cannot be confounded with the solid object\*. Professor Wheatstone has also proved, by beautiful experiments, that there is no necessary physiological connexion between the corresponding points of the two retine—a doctrine maintained

by so many authors.

#### SUPERIOR VISION WITH ONE EYE.

EVERY one must be aware how greatly the perspective of a picture is enhanced by looking at it with only one eye;

<sup>\*</sup> Phil, Trans. pt. ii, 1833.

especially when a tube is employed to exclude the visiou of adjacent objects, whose presence might disturb the illusion. Seen under such circumstances, from the proper point of sight, the picture projects the same lines, shades, and colours on the retina, as the more distant scene which it represents would do, were it substituted for it appearance which would make us certain that it is a picture is excluded from the sight, and the imagination has room to be active. Several of the older writers erroacousty attributed this apparent superiority of monocular vision to the concentration of the visual power in a single eye. "We see more exquisitely with one eye shut than with both, because the vital spirits thus unite themselves the more and become the stronger; for we may find, by looking in a glass whilst we shut one eye, that the pupil of the other dilates"."

# HAUSION OF PERSPECTIVE.

THERE is a well-known and very striking Illusion of Perspective, the reason of the effect of which does not appear to be generally understood. When a perspective of a building is projected on a horizontal plane, so that the point of eight is in a tine greatly inclined towards the plane, the building appears to a single eye placed at the point of sight to be in bord relief, and the illusion is almost perfect. This effect wholly arises from the unusual projection, which suggests to the mind more readily the object itself than the drawing of it; for we are accustomed to see real objects in almost every point of view, but perspecifie representations being generally made in a vertical plane with the point of eight in a line perpendicular to the plane of project on, we are less familiar with the appearance of other projections. Any other unusual projection will produce the same effect !.

# "THE THUNDERBOLL"

A SINGULAR variety in the appearance of the flashes of lightning during a severe thunder storm, is usually designated a Thunderbult by the uninto med, from its resemblance to a large and rapidly moving ball of fire, which is erroneously supposed to fall as a solid body

<sup>\*</sup> Lord Bacon's Works, Sylva Sylvarum, art. Vision. Quoted by Prof. Wheatstone on Vision, Phil. Trans, 3638, part if † Prof. Wheatston, this.

### DANGER FROM STORMS.

WE are often told that there is no danger if a certam interval of time can be counted between the flash and the report of the thunder: this is true enough; but it is equally true, that if we can count at all we are safe.

# RISE OF THE TIDE-OLD LONDON BRIDGE.

There is frequently considerable ambiguity in the use of the term, Risc of the Tide, and misconception as to the effect of the removal of Old London Bridge upon the rise and fall of the tides. The water falls lower by three or four feet, that is, by the height of the sill which was removed; but the difference of level of high-water is very small, not more than a few inches. The Old London Bridge caused a sort of weir, varying from eight to eighteen inches, as the water ran up, but depending in a great measure on the quantity of upland water which was coming down; and sometimes there was scarce any difference of level on the two sides of the bridge.

### HEIGHT OF THE PATAGONIANS.

THE height and appearance of these famous people,—these

" Anthropophagi, whose heads
Do grow beneath their shoulders."

have occasioned much wonder, doubt, and controversy, from the period of their being first seen by the great Magalhaens\*, who represents them as being about seven feet, French, or seven feet six inches, English measure to Le Maire, whose skeletons were ten or eleven feet long; and from Captain Byron, who states them to be between seven and eight feet, to the Jesuit Falkland, whose maximum was seven feet eight inches, giving six feet as the middle height.

The subject is, however, considered to have been nearly stripped of its fable and Frror by Messrs. King and F tzroy, in their recent expeditions to the South, in 11.M.S. the Beagle. The aborigines of Patagonia wear a large mantle of guanaco skins, sewed together, which hangs loosely to their ankles, and adds so much to the bulkiness

<sup>\*</sup> Commonly but erreneously called Magellan.

of their appearance, that it is no wonder they have been called "gigantic". Their peculiar habit of folding the arms in these mantles renders them very high-shouldered, and greatly increases their apparent height and bulk; and it was this, doubtless, that led to the description of their

wearing their "heads beneath their shoulders."

"I am not aware," says Captain Fitzroy, "that a Patagonian has appeared during late years, exceeding in height six feet and some inches;" although he sees no reason to disbelieve Falconer's account of the Cacique Cangapol, represented as seven feet some inches. Among two or three hundred natives, scarcely half-a-dozen men are seen whose height is above five feet nine or ten inches; the women being tall in proportion. Captain Fitzroy adds, that he has nowhere met with an assemblage of men and women, whose average height and apparent bulk approached that of the Patagonians. Until actually measured, he could not believe that they were much taller than was found to be the case.

Captain King gives the average height at between five Seet ten inches and six feet; one man only exceeding six feet, whose dimensions, measured by Captain Stokes, were in height, six feet one inch and three quarters: around the chest, four feet one inch and one eighth; round the loins, three feet four inches and three quarters. Captain King, however, thinks, that the disproportionate largeness of head and height of body of these people, has occasioned the mistakes of some former navigators: he suggests, that the preceding generation may have been a larger race of people; but by a different mode of life, or a mixture by marriage with the southern or Fuegian tribes, which he states is known to have taken place, they may have degenerated in size, and lost all right to the title of giants. Captain King also states, that, from a mirage or haze, during very fine weather and a hot day, arising from the rapid evaporation of the moisture so abundantly deposited in the Strait, an optical deception takes place, which causes the natives, seen at a little distance, to "loon very large." This may be another cause of their being taken for " giants" by former navigators. It has been that the footsteps of the Patagonians in the sand were first noticed, and excited some such exclamations as "que patagones," what large feet !

### INVENTION OF THE DIVING-BELL.

Is the United States of America generally, and to some extent, in England, the Invention of the Diving-bell has been attributed to Sir William Phipps; who was, however. one of the first persons who used the Bell advantageously, in recovering nearly 300,000/. treasure from a Spanish wreck, near the Bahamas. The invention, or the earliest use, of the Diving-bell, was upwards of a century before the birth of Phipps; the first instance of its use being at Cadiz, in the presence of Charles V., in 1538; whereas, Phipps was born at Pemaguid, in America, in 1650. There is likewise a popular American opinion, that the Mulgrave family, of which the present head is the Marquess of Normanby, is descended from Sir William Phipps, which is a mistake; the founder of the Mulgrave family being Phipps, one of the earliest explorers of the Arctic regions.

Notwithstanding the great improvements made in Diving-bells, since their invention, we agree with Sir George Head, that, after all precautions, a man in a diving-bell is certainly in a state of awful dependence upon human aid: in case of the slightest accident to the air-pump, even a single stitch of the leathern hose giving way, long before that ponderous vessel could be raised to the surface of

the water, life must be extinct.

## THE ORRERY.

The invention of this machine is often erroneously attributed to the Earl of Orrery, from its being named after his lordship. The origin of the term is thus given by M. Desaguliers, in his Course of Experimental Philosophy, 4to. London, 1734, i. p. 431. After stating his belief that Mr. George Graham, about the year 1700, first invented a movement for exhibiting the motion of the earth about the sun at the same time that the moon revolved about the earth, he remarks: "this machine being in the hands of the instrument-maker, to be sent with some of his own instruments to Prince Eugene, he copied it, and made the first for the late Earl of Orrery, and then several others with additions of his own. Sir Richard Steele, who knew nothing of Mr. Graham's machine, in one of his lucubra-

tions, thinking to do justice to the first encourager, as well as to the inventor of such a curious instrument, called it an *Orrery*, and gave Mr. J. Rowley the praise due to Mr. Graham."

# THE "ZINC TREE."

It is vulgarly supposed to be an efflorescence of crystallised zinc, which is exhibited by suspending a piece of that metal in a bottle containing pure water saturated with sugar of lead: the real cause, however, is, that the lead is precipitated upon the zinc so as to form that brilliant metallic leafage, which has been called, not inappropriately, the arbor plumbi, or lead tree.

## FALSE ESTIMATES OF NAVIGATION.

THE ordinary means for estimating distances at sea are subject to much uncertainty. To estimate the distance gone over by a vessel requires a knowledge of the effect of currents, which act at once on the vessel and on the log, which sailors throw into the sea, and which serves as a fixed point for them, from which they count how much they advance in a given time; commonly, half a minute. This motion is measured by means of a cord divided by knots, the intervals between which answer to the 120th part of the hour. But when the vessel and the log are subjected to the action of the same current, the distance by which the vessel exceeds the log, only indicates the relative quickness of the ship with respect to the current; and we have still to determine the velocity which this current impresses at the same time on the log and on the Such is the principal origin of the differences, often very considerable, between the place where pilots think they are, according to the estimate of their routes, and that where the vessel really is. In consequence of these errors, the lands discovered by the Magalhaens, the Mendanas, and the Quiros, have been so ill-placed in longitude that geographers have had great difficulty to ascertain We have seen, if we may say so, Solomon's Isles, so remarkable for their beauty and riches, and for the detailed description of them by their discoverer, Mendana, floating through nearly a quarter of the circumference of None of the navigators who went over these the globe. parts after him, beginning with Quiros, his companion,

and who followed him immediately, could break the charm which seemed to forbid mankind the access to a land, which the imagination, stimulated by obstacles, clothed in the most brilliant colours. More sober minds began to doubt their existence; when Dalrymple and Fleurien showed that they must be identical either with the New Britain of Dampier, or with the land of the Arsacides, and the adjacent isles visited by Bougainville and Surville. In the latter hypothesis, the latitudes first assigned to them were not very exact; but the currents which go from east to west, in the great ocean, had accelerated very much, without his being able to perceive it, the vessel of Mendana, who reckoned himself to be only 1500 Spanish leagues, or about 1700 marine leagues of France, from the coast of Peru, when he was really near 2,400\*.

### IMPERFECTION OF NAUTICAL MAPS.

WHAT a Military Map is for the ground, Nautical Maps are for the seas: they even interest the physical geographer, as they represent, though very imperfectly, the irregularities of the bottom of those basins covered with water, which occupy so vast a portion of the globe. The rocks, reefs, sand banks, scattered through the seas, are submarine mountains and hills; and a complete knowledge of them would throw great light on the geography of the terrestrial mountains. Unfortunately, Nature seems to forbid the hope of our ever completing this part of geography. "Navigators," says the celebrated mariner, La Perouse, "can only answer for the routes they may have made, or the soundings they have taken; and it is possible, that, on the finest seas, they may have passed close beside banks or shoals where there were no breakers, that is to say, whose existence was not betrayed by the foam of broken waves."

### MISAPPLICATION OF GEOMETRICAL TERMS.

In Physical Geography, what an abuse has been made of the appellations pyramidal, conical, and others of a similar kind! Yet, what a striking difference is there between the winding or abrupt lines of our mountains, and the regularity of geometrical figures! How often has the term crystallisation been employed to conceal the in-

\* Malte-Brun's Universal Geography, b. vi. pp. 141-2.

significance of a shallow remark! This famous word, like the sword of Alexander, has enabled many to cut knots which they knew not how to untie. In the cabinets, almost every thing is crystallised; in Nature, almost every thing is irregular in its figure.

SUBPERHAMEAN WORLD-ORIGIN OF GAVERNS.

The causes which have produced these cavities, have, unquestionably, had a sphere of activity to which our observations are far from being commensurate, phenomena, particularly earthquakes, seem to indicate the existence of much more considerable cavities than those which are known to us. But, the wisest course we can pursue is to acknowledge our perfect unacquaintance with their nature. We no longer live in an age when Athanasins Kircher dared to describe the Subterraneous World as if he had travelled through it in every direction. unknown is now banished from the land of science, and is become the exclusive patrimony of romance-makers. Caverus, frequently the first excavation is only the first vestibule to another much deeper and larger; but the dimensions of caverns have been much exaggerated, Great Kentucky Cavern is stated at ten or twelve miles in length. Near Frederickshall, in Norway, according to Pontoppidan, there is a hole into which, if stones be thrown, two minutes appear to clapse before they reach the bottom; from which it has been concluded, that the depth was upwards of 11,000 feet. Among the numerous caverns of Carniola, that of Adelsherg is said to afford a subterranean walk of two leagues; but this computation, of rather ton enthusiastic a writer, requires to be confirmed, Humphry Davy describes the grotto of Maddalena, at Adelaherg, as "many hundred feet below the surface," where "a poet might certainly place the palace of the King of the Unomes."

VELOGITY OF WATER-WHEELS IN THE NIGHT:

We are not aware that any popular notion is more extensively diffused among millers, (though many of them may not believe in it.) than that which ascribes a greater Velocity in the Night than in the day to a Water-wheel under the same head. Why there should be any difference, none of the believers in this doctrine have ever been able satisfactorily to explain. To argue against it has been futile, because early prejudice was stronger than the

powers of reason; and, therefore, no other way remained that could prove effectual, but to bring it to the test of ex-For this labour we are indebted to Professor Cleaveland. His statement, which follows, is contained in a letter to Professor Silliman, and published in the American Journal of Science and the Arts :- " In a former letter, I mentioned the opinion existing in this part of the country, that saw-mills move faster during the night than the day. The explanation usually given by the workmen is, that the air becomes heavier after sunset. I selected a fine day in August, and requested that all the mill-gates might remain stationary for twelve hours. At two o'clock p.m. I suspended a barometer in the mill; the pressure of the atmosphere was equal to 30-19 inches; the temperature of the water just before it passed the mill gate was 72" Fahr. The log was then detached from the saw, and the number of revolutions of the wheel, being repeatedly counted by different persons, was ninety-six in a minute. At midnight, I again visited the same mill. The barometer stood at 30.26 inches, the pressure of the atmosphere having in-The temperature creased seven-hundredths of an inch. of the water was 72°, the same as at the preceding observation, although it had been a little higher during the afternoon. The log being detached as before, the wheel was found to revolve precisely ninety-six times in a minute, showing the same velocity as at the preceding noon. The depth of the water was the same during both experi-The workmen were satisfied that the result of the experiment was correct, but still they seemed to believe that it would be different in a cloudy night "."

### DECEPTIVE APPEARANCE OF WAVES.

If we observe the Waves continually approaching the shore, we must be convinced that this apparent motion is not one in which the water has any share: for were it so, the waters of the sea would soon be heaped upon the shores and would inundate the adjacent country: but so far from the waters partaking of the apparent motion of the waves in approaching the shore, this motion of the waves continues, even when the waters are retiring. If we observe a flat strand when the tide is ebbing, we shall still find the waves moving towards the shore †.

f Dr. Lardner.

<sup>\*</sup> American Railroad Journal.

#### MEZZOTINTO ENGRAVING.

THE discovery of the art of Engraving in Mezzotinto has been a subject of some controversy and misrepresentation, and has only been recently cleared up. The account commonly given of its discovery is, that Prince Rupert, observing one morning a soldier engaged in cleaning from his musket the rust which the night-dew had occasioned, and perceiving upon it, as he thought, some resemblance to a figure; it occurred to him whether or not, by corroding or grounding a plate all over in a manner resembling the rust, he might not afterwards scrape away a design upon it, from which impressions might be obtained. In short, it is said that he tried and succeeded, and thus became the inventor of Mezzotinto Engraving. This anecdote obtained currency from its being related by Lord Orford, in his celebrated work upon the Arts; as well as from the avidity with which origins of the arts are set down as the results of accident.

The discovery has likewise been claimed for Sir Christopher Wren; but his communication to the Royal Society on the subject is of date four years subsequent to the date of the earliest of the mezzotinto plates engraved by Prince Rupert. Still, the pretensions of the Prince are alike invalid; for he was guilty of an act of meanness in imposing upon John Evelyn, and this to the extent of allowing a man of his high character to impose, in turn, however unconsciously, upon the world, by claiming for Prince Rupert the honour of an invention to which the Prince well knew all the while that he had no title.

The real inventor of this art was Louis von Siegen, a lieutenant colonel in the service of the Landgrave of Hesse Cassel, from whom Prince Rupert learned the secret when in Holland, and brought it with him to England, when he came over a second time in the suite of Charles II. Some curious and very rare prints recently purchased on the Continent, and now deposited in the British Museum, place the claims of Von Siegen beyond doubt. In this collection is a portrait of the Princess Amelia Elizabe h of Hesse, dated 1613, which is fifteen years anterior to the earliest of Prince Rupert's dates. In the same collection, is another curious work by Von Siegen, a portrait of the Queen of Bohemia, dated 1643, which places the question

beyond all dispute. There is likewise still another plate by Von Siegen, which bears the most conclusive evidence of its having been produced in the very infancy of the art; besides which, is the fact that Von Siegen frequently attached the words "primus inventor" to his works.

### THE TERM RILIEVO.

This term, improperly spelt Relievo, as applied to sculpture, signifies the representation of any object projecting or standing forth from the plane on, and commonly out of which, it is formed. Of rilievos there are three kinds—basso, mezzo, and alto: the first is, when the projection is less than one half of the natural thickness, such as is seen on coins or medals; the second, when one half of the figure emerges; the third, when the figure is so completely salient, that it adheres to the plane only by the narrow strip.

NOAH'S ARK.

THERE is much difference of opinion about the form of the Ark "made" by Noah, previous to the Flood. The common figures are given under the impression that it was intended to be adapted to progressive motion; whereas, no other object was sought than to construct a vessel which should float for a given time upon the water. For this purpose, it was not necessary to place the ark in a sort of boat, as in the common figures; and we may be content with the simple idea which the text gives,-namely, that of an enormous oblong box, or wooden house, divided into three stories, apparently with a sloping roof. Noah's Ark was so named from its supposed resemblance to an ark or chest; by which name it occurs both in the Gothic and Anglo-Saxon versions of the passage in Luke xvii. 27. Wiclif, in this passage, instead of Ark, reads ship; and hence may have arisen the Popular Error of representing Noah's Ark in the form of a huge boat or vessel. In the north of England, to the present day, the word ark is used for the chest which is employed for containing meal.

How few readers are aware of the identity of the dimensions of Noah's house upon the waters with those of the stupendous steam-ships that are at this moment ploughing the Atlantic Ocean! Yet, such is shown in a volume by

<sup>\*</sup> Abridged from the Penny Cyclopædia, voce Mezzotinto.

W Radford, R.N. oneitled, On the Construction of the Ark. as admitted to be Neval Architecture of the present day, "How strange," says the author, "that for a period of kaliful years and upwards, men should have gone on, each in his own way, when positive proofs and directions are niamly and forcibly laid down by the Almighty himself, in language and terms intelligible to the meanest capacity. -in anguage so plain and forcible that the greatest sceptic cannot attenue to dispute it, either by subtracting from it, or adding to it. For this is the plain and forcible passage of the Holy Wat, in the sixth chapter of the book of Genesia. and the fitteenth verse :- 'And this is the fashion which thou shalt make it of: the length of the Ark shall be three hundred cubits, the breadth of it fifty cubits, and the height of it thurty cubits.' This pussage of Holy Writ is very remarkable, and has always engaged the attention of scientific men; more particularly so, when in working out the connage of the Ark, as therein laid down, both by arithmetic and logarithms, the amount of burthen in tonnage is precisely the same. But this passage has lately received an additional stimulus, as well as a striking proof of its correct and true principle in ship-building, through the instrumentality of those two splendid vessels, the Great Western and the British Queen; the proportional part of these ships being precisely the same as those laid down for the construction of the Ark. This happy event has caused a new light to shine forth on the all-important and engrossing topic of naval architecture; and it is not too much to infer, that the dimensions of the Ark, as given by the Almighty himself to his servant Noah, were as much intended for man's mechanical guide and rule, as the cross has since been set forth for his moral guidance and gopernment."

# LOT'S WIFE.

In the account of the destruction of the five Cities of the Plain, the text, "She became a pillar of salt," does not afford any ground for the common impression, that "fe became a statue of rock salt. The word ren-illar," denotes, generally, any fixed object, and xi "salt," denotes also bitumen. So the text to denote, that the woman was overwhelmed aching matter, which formed a mound over

\* Genesis, chap, xix. v. 26.

her, and fixed her where she stood. The "pillar of salt" is one of the wonders which travellers have been in the habit of looking for in this district; and masses of salt have, accordingly, been shown them, but in such different situations as to manifest that the natives were imposing

upon them for the sake of their money\*.

Professor Daubeny, in his work on Volcanoes, explains the above phenomenon with more scientific precision than the writer in the preceding note. The Professor supposes that volcanic agency was the physical instrument employed by the Almighty to destroy the five Cities of the Plain; that the Salt or Dead Sea, arose either from the subsidence of the plain, or from the damming of the Jordan by a current of lava; that the showers of fire and brimstone were occasioned by the fall of volcanic ejections; and, (agreeing in this with Mr. Henderson, the celebrated missionary traveller in Iceland), that Lot's wife, lingering behind her friends, may have been first suffocated, and then incrusted with saline and other volcanic materials.

## LOOKING BACK.

THE superstition of the Ill Luck of Looking Back, or returning, is nearly as old as the world itself; having, doubtless, originated in Lot "having looked back from behind him," when he was led, with his family and cattle, by an angel outside the doomed City of the Plaint. "Whether walking or riding, the wife was behind her husband, according to a usage still prevalent in the East, where no woman goes before or beside her husband." Mr. Roberts, in his curious Oriental Illustrations, remarks, that it is considered exceedingly unfortunate in Hindoostan for men or women to look back when they leave their house. Accordingly, if a man goes out, and leaves something behind him which his wife knows he will want, she does not call him to turn or look back, but takes or sends it after him; and if some great emergency obliges him to look back, he will not then proceed on the business he was about to transact. If we mistake not, some similar feeling is entertained in some parts of England, though not carried so far into operation !."

Notes to the Pictorial Bible, p. 50.
 † Genesis, chap. xix., v. 26.
 † Notes to the Pictorial Bible, p. 50.

# VII.—NATURAL HISTORY.

### FABULOUS ANIMALS OF THE ANCIENTS.

The greater number of these Animals have a purely mythological origin, as is unequivocally denoted by the descriptions given of them; and, in almost all of them, we see merely the different parts of known animals united by an unbridled imagination, and in contradistinction to

every established law of Nature.

Those which have been invented by the poetical fancy of the Greeks have, at least, some grace and elegance in their compositions, resembling the fantastic decorations which are still observable on the ruins of some ancient buildings, and which have been multiplied by the fertile genius of Raphael in his paintings. Learned men may be permitted to employ their time and ingenuity in attempts to decipher the mystic knowledge concealed under the form of the Sphynx of Thebes, the Pegasus of Thessaly, the Minotaur of Crete, or the Chimera of Epirus; but it would be folly to expect seriously to find such monsters in Nature. We might as well endeavour to find the animals of Daniel, or the beasts of the Apocalypse, in some hitherto unexplored recesses of the globe. Neither can we look for the mythological animals of the Peruvians,-creatures of a still bolder imagination,-such as the Martichore, or destroyer of men, having a human head on the body of a lion, and the tail of a scorpion\*; the griffin, or guardian of hidden treasures, half eagle and half lion +; or the Cartazonon, or wild ass, armed with a long horn on its forehead 1.

Ctesias, who reports these as actual living animals, has been looked upon by some authors as an inventor of fables; whereas, he only attributes real existence to hieroglyphical representations. The strange compositions of fancy have been seen in modern times on the ruins of Persepolis. It is probable that their hidden

<sup>\*</sup> Piin, viii. 21.—Aristot.—Photii Bibl., art. 72.—Ctes. Indic.—Ælian. Anim. 1. † Ælian. Anim.

<sup>‡</sup> Id. xvi. 20.—Photii Bibl. art. 72.—Cres. Indic. § Le Brun, Voy. to Museovy, Persia, and India, vol. ii. See also the German work by M. Reeren, on the Commerce of the Ancients.

meanings may never be ascertained; but, at all events, we are quite certain that they were never intended to be re-

- presentations of real animals.

7150

Agatharcides, another fabricator of animals, drew his information, in all probability, from a similar source. The monuments of ancient Egypt still furnish us with numerous fantastic representations, in which the parts of different kinds of creatures are strangely combined-men with the heads of animals, and animals with the heads of men; which gave rise to Cynocephali, Satyrs, and Sphynxes. The custom of exhibiting in the same sculpture in basrelief, men of very different heights, of making kings and conquerors gigantic, while their subjects and vassals are represented as only a fourth or a fifth part of their size, must have given rise to the fable of the Pigmies. some corner of these monuments, Agatharcides must have discovered his Carnivorous Bull, whose mouth, extending from ear to ear, devoured every other animal that came in his way\*. But a naturalist will scarcely acknowledge the existence of any such animal, since Nature has never joined cloven hoofs and horns with teeth adapted for cutting and devouring animal food.

Imaginary animals are likewise to be found among every people where idolatry has not yet acquired some degree of refinement; indeed these animals are their idols. But, is there any one who could possibly pretend to discover, amidst the realities of animal nature, what are thus so plainly the productions of ignorance and superstition? And yet, some travellers, influenced by a desire to make themselves famous, have gone so far as to pretend that they saw these fancied beings; or, deceived by a slight resemblance, into which they were too careless to inquire, they have identified these with creatures that actually exist. In their eyes, large baboons, or monkeys, have become Cynocephalii and Sphynxes, real men with long tails. It is thus that Saint Augustin imagined he had seen a

Satvr.

Real animals, observed and described with inaccuracy, may have given rise to some of these ideal monsters. Thus, we can have no doubt of the existence of the hyena,

<sup>\*</sup> Photii Bibl., art. 250.—Agatharcid. Excerp. Hist., cap. 39.—Ælian. Anim. xvii. 45.—Plin. viii. 2

although the back of this animal be not supported by a single bone, and although it does not change its sex yearly, as alleged by Pliny. Perhaps, the Carnivorous Bull may have only been the two-horned rhinoceros, falsely described.

This very luminous and interesting disquisition has been somewhat abridged from Cuvier's celebrated Essay on the Theory of the Earth. To this we may add that the tales of the Anthropophagi are as old as Pliny, and were resuscitated by Raleigh, in his account of Et Dorado. "The fables of the supposed natural deficiency of beard in the Americans, the Syrens, Centaurs, and others of the same stamp," says Blumenbach, "can only be excused by the simple, easy, credulity of our ancestors."

The existence of the Giraffe was formerly received as fabulous, on account of the absence of that animal from Europe for three centuries and a half; whence the accounts of its extraordinary height and apparent disproportions, caused it to be classed with the unicous, sphynxes,

&c., of ancient naturalists and poets.

#### GIANTS.

The belief in the existence of Giants appears to have been founded upon so many seeming evidences of authority, that, in the fondness of man for wonders, it is not surprising that he has, nearly to our own times, enter-

tained this fallacy.

7)

First among the circumstances which have fostered this belief, is the very common opinion, that in the earliest ages of the world, men were of greater stature than at Pliny observes of the human height (vii. 16), that "the whole race of mankind is daily becoming smaller;" a most alarming prospect if it had been true, But all the statements made on this subject, tend to convince us that the human form has not degenerated, and that men of the present age are of the same stature as in the beginning of the world. In the first place, though we read both in sacred and profane history of Giants, yet they were at the time of their existence esteemed as wonders, and far above the ordinary proportions of mankind. All the remains of the human body, as bones, (and particularly the teeth,) which have been found unchanged in the most ancient ruins and burial-places, demonstrate this point clearly.

The oldest coffin, or rather sarcophagus, in the world, is that found in the great pyramid of Fgypt, and is scarcely six feet and a half long. From looking also at the height of murmines which have been brought to this country, we must conclude that the people who inhabited Egypt two or three thousand years ago, were not superior in size to the present inhabitants of that country. Neither do the inferences from the finding of ancient armour, as helmets or breast-plates, or from buildings designed for the abode and accommodation of men, concur in strengthening the

proofs of any diminution of stature in man.

Passing over the fables of the Giants of profane history, we come to their mention, in Scripture, before the Flood, in the sixth chapter of Genesis, vi.4: (" there were Giants in the earth in those days";) where, the Hebrew word Nephilim does not signify Giants, as commonly translated, but violent men. Some think that instead of Giants in stature, monsters of rapine and wickedness were intended to be represented; and Dr. Johnson says, that the idea of a Giant is always associated with something fierce, brutal, and wicked. The context in the next verse, that "the wickedness of man was great in the earth," renders the above interpretation more probable than any relation to the stature of man. In the thirteenth chapter of Numbers, v. 33, the reference to "the Giants, the sons of Anak, which came of the Giants," implies the family of Anakim to have been men of great stature, and the context states circumstances of comparison, in the people being as grasshoppers in their sight; still, the fears of the spies may have magnified the dimensions of this family into the gigantic.

The notion of the existence of Giants formerly, has, also, in many instances, been founded on the discovery of the bones of different large animals belonging to extinct species, which have been ascribed to human subjects of extraordinary stature. The bones of an elephant have even been figured and described by Buffon as remains of human Giants, in the supplement to his classical work. The extravagance of such suppositions has been completely exposed by geologists, and the supposed fossil remains of gigantic human bones are proved to have belonged to the Megatherium and Pulæotherium, and other individuals; which certainly proves that in remote ages there existed animals of much larger dimensions than

attimum it does not supported by attimum it does not change its sex year), and France Perhaps, the Carnivorous Bull any learning the two-horned rhinoceros, falsely de-

The new numbers and interesting disquisition has a conservant strenged from Cavier's celebrated English Earth. To this we may add that the use of the nuthropophagi are as old as Pliny, and we remerkated by Raleigh, in his account of El Dorale. The fames of the supposed natural deficiency of beard in the innericants, the Syrens, Centaurs, and others of the more stany," says Blumenbach, "can only be excused by the simple, easy, credulity of our ancestors,"

The examence of the Giraffe was formerly received formous, on account of the absence of that animal from Europe for these centuries and a half; whence the accounts of its extraordinary height and apparent disproportions, caused it to be classed with the unicount, aphymac,

&c , of ancient naturalists and poets.

## GIANTS.

This belief in the existence of Giants appears to have been founded upon so many seeming evidences of inthority, that, in the fondness of man for wonders, it is no surprising that he has, nearly to our own times, cruz-

tained this fallacy.

Pirst among the circumstances which have for this belief, is the very common opinion, that in the ages of the world, men were of greater statuments present. Pliny observes of the human height that "the whole race of mankind is daily because a most alarming present if it had been statements made a bleet, ten the human form generally the world sacred and time of it

the oldest coffin, a same hat found in the grap part of the feet and a half long from must conclude that the part of three thousand years at three thousand years at three thousand years at the form of the found of

and accommodates of proofs of any one

Passing over we come to their remain the sixth charter in the earth in the carth in

Whe represented the little of the state of t

came of the time, and have been men and the been men and the beginning of the beginning of

the form of a first to the firs

plearnii L fic and popuon's Journal, Geoffroy-St.of the above

imals of the nce has been or, at least. for. Three the Ancients e of the foreloofs, the hair height equal os, and said to dian Ass, havmerly so called, hose of the lion, and is, therefore, horse-unicorn and Ferable to the Inas having solid assured that these no solitary horns have excepting those Again, in all cloven-- me is divided longitudinally le and not possibly, as very justly horn placed upon the suture;

en suggested that the straight-horned medin may have furnished the idea of n Oryx. Supposing an individual of the seen which had accidentally lost may have been taken as a representated erroneously adopted by Aristotle, successors. All this is quite possional gives not the smallest evidence ingle-horned species of antelope.

identity of the Oryx and the Mo-

inent zoologists of the day, however, the Indian Rhinoceros: and his ex-

Demont of Local

any now in being, though we have no reason to suppose

that this variety extended to our own species.

In more modern times, the belief in Giants has been fostered by the exaggerated accounts of the colossal stature of the Patagonians, such as have been already explained. Blumenbach observes: "the supposed Patagonian giants have sunk, in the relations of travellers from Magalhaens' time down to our own, from 12 feet to 7 feet, and at best are but little taller than any other men

of good staturet."

The practice of associating certain stupendous phenomena of Nature with Giants has, doubtless, strengthened belief in them, especially in the minds of the young: the "Giants' Causeway," in Antrim, is an example. Indeed, the majority of such phenomena, which strike the beholder with their magnitude, have been referred by ignorant persons to Giants, or "the Devil." Such are "the Devil's Punchbowl," in Hampshire; "the Devil's Arrows," in Yorkshire; and "the Devil's Jumps," a conspicuous group of barren and somewhat conical hills in Surrey, apparently the remaining portion of a stratum of sand reduced by abrasion to their present irregular form. lechs and other huge stones, and Barrows, or burial-places of heroes, and even Stonehenge itself, have probably caused the existence of Giants to linger in the minds of weak persons, until an acquaintance with geology has enabled them to trace these phenomena to natural causes.

Coleridge has appositely exposed the fallacy of the belief in Giants, by imagining a traveller in some unpeopled part of America to be attracted to the mountain burial place of one of the primitive inhabitants. He digs into it, and finds that it contains the bones of a man of mighty stature; and he is tempted to give way to the belief, that as there were Giants in those days, so that all men were Giants. But, a second and wiser thought may suggest to him, that this tomb would never have forced itself upon his notice, if it had not contained a body that was distinguished from others; that of a man who had been selected as a chieftain or ruler for the very reason that he surpassed the rest of his tribe in stature, and who now lies thus conspicuously inhumed upon the mountain-top, while the bones of his followers are laid unobtrusively together in the plain below.

\* See page 319. † Manual of the Elements of Natural History, p. 38. The best account of Giants, at once scientific and popular, that we have seen, will be found in Jameson's Journal, 1833: it is by the eminent naturalist M. Geoffroy-St.-Hilaire, and extends to nearly fifty pages of the above journal.

### THE UNICORN.

THE most famous among the Fabulous Animals of the Ancients, was the Unicorn, whose real existence has been obstinately asserted, even in the present day; or, at least, proofs of its existence have been eagerly sought for. Three several animals are frequently mentioned by the Ancients as having only one horn placed on the middle of the forehead, viz. the Oryx of Africa, having cloven hoofs, the hair placed reversely to that of other animals, its height equal to that of the bull, or even of the rhinoceros, and said to resemble deer and goats in its form; the Indian Ass, having solid hoofs; and the Monoceros, properly so called, whose feet are sometimes compared to those of the lion, and sometimes to those of the elephant, and is, therefore, considered to have divided feet. The horse-unicorn and the bull-unicorn are, doubtless, both referable to the Indian Ass, for even the latter is described as having solid hoofs. We may, therefore, be fully assured that these animals have never really existed, as no solitary horns have ever found their way into our collections, excepting those Again, in all clovenof the rhinoceros and narwal. footed animals, the frontal bone is divided longitudinally into two, so that there could not possibly, as very justly remarked by Camper, be a horn placed upon the suture; a conclusion fatal to the identity of the Oryx and the Monoceros.

It has, however, been suggested that the straight-horned Antilope Orgx of Gmelin may have furnished the idea of the Unicorn being an Oryx. Supposing an individual of this species to have been seen which had accidentally lost one of its horns, it may have been taken as a representative of the entire race, and erroneously adopted by Aristotle, to be copied by all his successors. All this is quite possible, and even natural, and gives not the smallest evidence for the existence of a single-horned species of antelope.

One of the most eminent zoologists of the day, however, refers the Unicorn to the Indian Rhinoceros: and his ex-

planation is at once brief and satisfactory. He observes: "The Indian Rhinoceros affords a remarkable instance of the obstructions which the progress of knowledge may suffer, and the gross absurdities which not unfrequently result from the wrong application of a name. This animai, to whose horn the superstition of the Persians and Arabs has in all ages attributed peculiar virtues\*, became known to the Greeks through the description of Ctesias, a credulous physician of that nation, who appears to have resided at the court of Persia in the time of the younger Cyrus, about 400 years before the birth of Christ. His account. though mixed up with a great deal of credulous absurdity. contains a very valuable and perfectly recognizable description of the Rhinoceros, under the ridiculous name, however, of the Indian Ass; and as he attributed to it a whole hoof like the horse, and a single horn in the forehead, speculation required but one step further to produce the fabulous Unicorn, such as it appears in the Royal Arms of England, and such as it has retained its hold on popular credulity for the last two thousand years +." We suspect that Heraldry, with its animal absurdities, has contributed more to the propagation of error respecting the natural world, than any other species of misrepresentation.

It should be added, that the Rev. John Campbell, in his Travels in South Africa, (vol. ii. p. 294,) describes the head of another animal, which, as far as the horn is concerned, seems to approach nearer than the common rhinoceros to the Unicorn of the ancients. While, in the Machow territory, the Hottentots brought to the traveller a head different from that of any rhinoceros that had previously been killed. " The common African Rhinoceros has a crooked horn resembling a cock's spur, which rises about nine or ten inches above the nose, and inclines backward; immediately behind which is a straight thick But the head they brought, had a straight horn projecting three feet from the forehead, about ten inches The projection of this great above the tip of the nose. horn very much resembles that of the fanciful Unicorn in the British arms. It has a small thick horny substance eight inches long, immediately behind it, and which can

<sup>\*</sup> See page 274.

Mr. Ogilby; Dr. Royle's Natural History of the Himalayan Mountains

hardly be observed on the animal at the distance of 100 yards; so that this species must look like a Unicorn, (in the sense 'one-horned,') when running in the field." The author adds: "the animal is considered by naturalists, since the arrival of the skull in London, to be the Unicorn of the ancients, and the same that is described in Job xxxix." A fragment of the skull, with the horn, is deposited in the Museum of the London Missionary Society.

#### THE MERMAID.

THE absurd notion, "that there are Mermen and Mermaids, half man or woman, and the remainder fish," was of long standing, but is now exploded. "Few eyes," says Sir Thomas Browne, "have escaped the picture of Mermaids, (for he does not admit their existence,) that is, according to Horace, this monster with woman's head above and fishy extremity below; and these are conceived to answer the shape of the ancient Syrens that attempted upon Ulysses. Which, notwithstanding, were of another description, containing no fishy composure, but made up of man and bird; the humane mediety variously placed. not only above, but below." Sir Thomas is, on the contrary, inclined to refer the Mermaid to Dagon, the tutelary deity of the Philistines, which, according to the common opinion, was half human and half fish-that is, with a human female bust and a fish-like termination: though the details of this fish-idolatry are very confined and conjectural.

The progress of zoological science has long since destroyed the belief in the existence of the Mermaid. If its upper structure be human, with lungs resembling our own, how could such a creature live and breathe at the bottom of the sea, where it is stated to be? for our own most expert divers are unable to stay under water more than half an hour. Suppose it to be of the cetaceous class, it could only remain under the water two or three minutes together, without rising to the surface to take breath; and if this were the case with the Mermaid, would it not be oftener

seen?

The olden accounts of the taking of Mermaids are too absurd for quotation: but it is truly surprising that the exhibition of a pretended Mermaid in London, so lately as in 1822, should have caught thousands of dupes; 300

or 400 of whom paid daily one shilling each for the indulgence of their credulity. The imposture was, however, too gross to last long; and it was ascertained to be the dried skin of the head and shoulders of a monkey, attached very neatly to the dried skin of a fish of the salmon kind, with the head cut off; the compound figure being stuffed and highly varnished, the better to deceive the eye. This grotesque object was taken by a Dutch vessel from on board a native Malacca boat; and, from the reverence shown to it by the sailors, it is supposed to have represented the incarnation of one of the idol-gods of the Molucca The Chinese and Japanese are very skilful in Islands. dressing up such matters; and this was, doubtless, a manufacture of the Indian Seas\*. It is remarkable that another pretended Mermaid shown in Holland is stated to have been brought from Japan: this specimen, has but one fin at the tail, so that if the object was ever in the water, its head must have been, at all times, lower than any other Both specimens are, however, so unsightly as to reduce Dryden's "fine woman ending in a fish's tail," to a witty fancy.

The existence of Mermaids has, however, been attested by so many witnesses, as to induce us to seek for the means by which they have, doubtless, been imposed on. Most of these observers have known but little of natural history, and many of them have been superstitious seamen, who have, in all probability, mistaken for a Mermaid a Dugong, which, of all the cetaceae approaches the nearest in form to man; and which, when its head and breast are raised above the water, and its pectoral fins, resembling hands, are visible, might easily be taken by the above observers

for a semi-human being.

We have omitted to state that the Mermaid is related to nave been seen using a comb and toilet-glass, which accessories to the fable, together with the origin of the creature, Sir George Head thus ingeniously attempts to explain in his popular *Home Tour:*—

The resemblance of the Seal or Sea-calf to the calf consists only in the voice, and the voice of the calf is certainly

<sup>\*</sup> It is but justice to state, that the Editor of the Literary Gazette was one of the first, if not the first journalist, to expose the fabrication of the Mernald of 1822; which other less sagacious observers were induced to regard as a natural wonder!

not dissimilar to that of a man; therefore, the connexion of the seal to humanity is, perhaps, farther preserved by the Greek word signifying a man, being  $\phi \omega s$ , and a seal  $\phi \omega \kappa \eta$ . But the claws of the seal, as well as the hand, are like a lady's back hair-comb; wherefore, altogether, supposing the resplendence of sea-water streaming down its polished neck on a sun-shiny day the substitute for a looking-glass, we arrive at once at the fabulous history of the marine maiden, or Mermaid, and the appendages of her toilet."

After so many exposures of the absurd belief in Mermaids, we certainly did not expect to find any person in Europe weak enough to report the existence of one of these creatures to an eminent scientific body. Yet such has been the case: for, on June 22, 1840, the First Secretary of the Ottoman Embassy at Paris addressed a note to the Academy of Sciences at Paris, stating, seriously, that his father, who is in the Admiralty department of Constantinople, had recently seen a Mermaid, while crossing the Bosphorus; which communication caused a great deal of hilarity!

### THE PHENIX.

SIR THOMAS BROWNE devotes a chapter to the ancient history of this "wonder of the world," commencing-"That there is but one Phænix in the world, which after many hundred years burneth itself, and from the ashes thereof ariseth up another, is a conceit not new, or altogether popular, but of great antiquity; not only delivered by humane authority but frequently expressed also by holy writers . . . All which notwithstanding, we cannot presume the existence of this animal; nor dare we affirm there is any Phœnix in nature." Sir Thomas then shows there to be no "ocular describer," and that Herodotus, who "led the story unto the Greeks, plainly saith, he never attained the sight of any, but only in the picture." number of erudite guesses are added; such as, "that the Phænix was a Bird of Paradise, and alike the emblem of the Resurrection and the Sun:" again, "that it was a palm-tree, and that it was only a mistake upon the homonymy of the Greek word Pænix, which signifies also a palm-tree." The common story may be told in a few words :- The Phoenix was thought to abide one hundred years in the deserts of Arabia, and at the expiration of that period to appear in the Temple of the Sun at Heliopolis, fall upon the blazing altar, and during its cremation, pour forth a melodious song from, or through, the orifices of its feathers, which thus formed a thousand organ-pipes: the feathers of the belly and breast being reported of a

gold colour.

This fable has been attempted to be explained by the supposition, that in warm countries, where sacrifices usually took place in the open air, many birds of prey, particularly vultures, undeterred by the fire and smoke of the alters, have dropped down, impelled by hunger, to seize the raw flesh laid upon them; when, if some perished in the flames, and others escaped, a sufficient basis was afforded to the marvel-loving ancients for the erection of their fabulous structure.

The adoption of the Phænix by chemists, as a shopsign, doubtless originated in its association with Alchemy. Sir Thomas Browne says-"Some have written majestically (of the Phoenix), as Paracelsus, in his book De Azoth, or De Ligno et Linea Vitæ; and as several hermetical philosophers, involving therein the secret of their Elixir, and enigmatically expressing the nature of their great work." The appropriateness of the Phoenix as a

fire-office emblem is still more evident.

The Phoenix is sometimes metaphorically applied to persons, as, "He is a Phœnix of his kind;"-" She is a Phænix among women;" the expression referring to the idea that only one Phænix ever existed at one time; wherefore, by a figure of speech, perfection is intended. Metastasio, in a neat stanza, compares the fidelity of lovers to the Phoenix, which, says he, "everybody talks of, but nobody has seen."

#### GRIPFINS.

SIR THOMAS BROWSE refers to the supposed Griffin, as " a mixt and dubious animal, in the fore part resembling an Eagle, and behind the shape of a Lion, with erected ears, four feet, and a long tail," the belief in which "many affirm, and most deny not." Sir Thomas then shows this twofold nature of bird and beast to be monstrous, " if examined by the doctrine of animals," or, in other words, the state of zoological knowledge in his time. The Grypes, or Griffins, of Scripture he regards as a large species of

eagle. The story of Griffins defending mines of gold, near the Arimaspi, or one-eyed nation, he treats as a poetical fable—a mere hearsay of Herodotus. Yet, hieroglyphically, Sir Thomas allows the Griffin to "make out well the properties of a guardian; the ear implying attention, the wings celerity of execution; the lion-like shape, courage and audacity; the hooked bill, reservance and tenacity. It is also an emblem of valour and magnanimity, as being compounded of the Eagle and Lion, the noblest animals in their kinds; and so it is applicable unto Princes, Presidents, Generals, and all heroic Commanders; and so is it also borne in the coat arms of many noble families of Europe."

But Sir Thomas Browne claims for the Griffin a far more ancient appropriation than as an heraldic distinction; since he considers it to be a hieroglyphic of the Egyptians, implying the great celerity, strength, and vigour of the Sun. Thus, "in antient coins, we meet with Gryphins, conjointly with Apollo's Tripodes and chariot-wheels; and the marble Gryphins at St. Peter's, in Rome, as learned men conjecture, were first translated

from the Temple of Apollo\*.

We find the Griffin to have been a favourite emblem with the Greeks; and a distinguished naturalist of our times has offered an ingenious idea of its origin from the Tapir, now known as the largest land animal in South America. M. Roulin observes, that the Greeks, who trafficked across the Black Sea, came in contact with the Scythians; and they, on their part, traded with the Argipeans, a Tartar people inhabiting the valleys at the foot of the Ural Mountains; the rich mines of which, doubtless, were known to the Greeks through the Scythians. those early and superstitious ages, every treasure was supposed to possess its peculiar guardian: such warders were chosen for their strength and frightful appearance; and hence arose the compound images of the winged Serpent, the Dragon, and the Griffin with the beak of an eagle and the claws of a lion. This last figure, our author conceives, was originally the guardian monster of the treasures of the Ural Mountains, the Cordilleras of the Argipeans; and its representation and its fabulous history were conveyed to the Greeks by the intervention of the Scythians, mingled

<sup>\*</sup> Vulgar Errors, b. iii. c. xi. pp. 144-145.

with traditions of the gold mines, in a manner conform

able with the spirit of the times.

This animal, as it is evident by the illustration of M. Roulin's memoir, which we have copied, (see Frontispicce,) possesses, in its general outline, a close resemblance to the Tapir in a sitting attitude (a); and the learned naturalist thus accounts for its possession of the various addenda of wings, crest, and tail. It is evident, he adds, that the original image of the Griffin, when introduced into Greece, was destitute of wings; as Heredotus, the oldest author who describes it, does not mention the wings; and his silence upon that point is important tesimony. But the more ancient dragons of the caverns of Greece were nearly all furnished with those members; wherefore, upon the introduction of a new monster, it would appear requisite, according to the preconceived notions of the people, to add them to its figure; and it was no very great stretch of imagination to accord the wings of an eagle to an animal which seemed already to possess its head; for the proboscis of the Tapir, when bent down in its usual position, bears no little similitude to the beak of that bird.

The sculptors, who considered the Griffin in a picturesque point of view, employing it in their arabesque ornaments, again contributed to alter its original form. To bestow additional gracefulness to its neck, they surmounted it with a mane, like that of their horses, making the hairs short, straight, and erect; and it is not impossible that they might have retained the genuine hogged mane of the tapir. Afterwards, to render still more fantastic a being which was already intermediate between a quadruped and a bird, they converted this crest into the likeness of the

dorsal fin of a fish.

The division of the toes of the tapir caused, with the Greeks, the same error as with the Chinese in the fabrication of their Mé; and, accordingly, they substituted for them those of the lion. As to the tail, it was almost certain that they would attempt to supply that appendage; and whilst some merely gave to the animal one conformable with its feet, others desiring to make the figure wholly imaginary, bestowed upon it a spiral scroll, and ornamented it with the leaves of the acanthus\*(b).

It remains to be explained how the Tapir was known to

<sup>\*</sup> Annales des Sciences Naturelles.

the Greeks; whereas, at present, only three species are known, two peculiar to South America, and the third lately discovered by M. Roulin, in Malacca and Sumatra. There have, however, been discovered by Cuvier, at Paris, the fossil remains of *Pulwotherium*, a genus apparently intermediate between the rhinoceros, horse, and Tapir, and in outline closely approximating to that of the American and Indian Tapirs.

## DRAGONS.

THE belief in the existence of Dragons was fostered by so many circumstances, that we are scarcely surprised to find traces of it retained even in the nomenclature of modern science. Meanwhile, it is hard to tell the origin of this belief, unless the Dragon of fable \* be an exaggeration of the crocodile by old naturalists: for it resembles a huge lizard more than any other animal. And the name of Flying Dragon is, to this day, applied to a small Saurian found in the East Indies; which, being furnished with a kind of wing, like that of the bats, but independent of the four feet, sustains itself like a parachute, when it leaps from

\* Of all Dragons, that of Wantley is the most celebrated. "This famous monster had, according to old story, forty-four teeth of iron, and some historians say he used to swallow up churches full of people, fat parson and all, and pick his teeth with the steeple; but this was probably only scandal. Little children, however, it is certain, he used to munch up as we would an apple. He had eyes like live coals, with a long sting in his tail, and his sulphurous breath poisoned the country for ten miles The knight who went to fight this monster very wisely got himself a suit of armour stuck all over with fron spikes, so that he looked like a great hedgehog, and when the dragon tried to worry him. he was obliged to leave go again: then the knight gave him some proper kicks in the ribs with the spikes at the end of his iron boots, and once ran his sword right into him, and killed him; but the dragon, forgetting he was dead, still fought on, fill a great part of his tail being lopped off, and his blood pouring out by buckets-full, he cried out ' Murder!' most lustily, and afterwards fainted away, and grouned, and kicked, and died; but, after all, the knight ran his sword into him several times, rightly conceiving that such a villain could never be too dead! If this story should not be true, it's founded on truth, and that's all the same An overgrown rascally attorney, at Wantley, near Rotherham, in Yorkshire, cheated some children out of a large estate; but a gentleman in the neighbourhood, arming himself with the spikes of the law, recovered their property for them; and the attorney having lost it and his character for ever, sickened, grieved, and died. But what would such a dry every-day story of villany be worth without some poetical flourishes about it? or, as Flutter says,- 'Really the common occurrences of this little dirty world are hardly worth relating, without some embellishment."-Percy's Reliques of Ancient Poetry.

branch to branch: still, it does not possess the faculty of beating the air, and so raising itself into flight like a bird; wherefore, the epithet "flying" is an exaggeration.

The Dragon, Draco, is one of the constellations referred by Higinus to the fable of the Hesperides of Greek mythology. These three nymphs dwelt in a beautiful garden in the western parts of the earth, in which grew the celebrated tree which bore golden apples. These apples were guarded by a fierce dragon named Ladon, who never alept; but Hercules killed this dragon, and carried off the precious fruit.

In the Apocalypse, the Devil is called the Dragon; on which account St. George, the patron saint of England, is usually painted on horseback, and tilting at a dragon under his teet, as emblematical of the saint's faith and fortitude.

If the old naturalists believed in the terrors of Dragons, they were as credulous respecting an antidote to them. "The naturalists observe, (says Howell,) that morning spittle kills Dragons\*." They also gave the name of "Dragon's Blood" to a resinous exudation from a palmtree in the Fast and West Indies; the colour of the resin being that of blood. Again, the term "Dragon-fly" has been applied to a harmless insect, from an erroneous notion of its possessing a sharp sting.

Recently, however, an ingenious attempt has been made

to identify the Dragon of fable with the erocodile.

M. de Freminville has written a short Essay on the existence of Dragons, of which we meet such constant mention in the legends and histories of the middle ages. will not believe these monsters to be the mere creations of romance, and adduces several ingenious reasons for believing them to have been real crocodiles. He cites many known facts of natural history, to prove that there is no reason to believe that these creatures never inhabited western Europe, merely because we do not now find them there. And, above all, he adduces the fact that, in the sand, at the mouth of the Seine, at Harfleur and Quillebouf, entire skeletons of crocodiles have been found in a state only half fossilized. From all which he concludes. that the continual battles of the heroes of the middle ages with dragons were, in truth, real encounters with croco-1499 41/

\* Fatuillar Letters.
| Trollope's Tour in Brittany, vol. 11. pp. 120, 121.

All Control of Gra

# ADAM'S APPLE

Is the name given to the protuberance in the fore part of the throat, occasioned by the projection of the thyroid cartilage of the larynx. This name originated from a superstitious tradition, that a piece of the forbidden fruit, which Adam ate, stuck in his throat, and occasioned the swelling.

# THE CORGONS.

Many contradictory opinions have been held concerning the Gorgons. Some critics have considered them as lovely young women, whose beauty was so powerful as to fix every beholder in motionless amazement; others have supposed them to be frightful old hags, whose deformity was so hideous, that no one could look at them without shuddering; and some late writers, with a sceptical refinement, have denied their existence. "But I (says Hayley) adhere to the evidence of that very respectable old Grecian, Palcephatus, who wrote a treatise expressly to explain the poetical riddles of his country; in which he declares, that the three princely Gorgon sisters, Stheno, Euryale, and Medusa, were three voluntary old maids "."

### OREOLES.

THE word Creole is often, in England, understood to imply a Mulatto; but the term means a native of a West Indian colony, whether white, black, or of the coloured population.

" MAN HAS ONE RIB LESS THAN A WOMAN."

Sir Thomas Browne observes, "that a Man hath one Rib less than a Woman, is a common conceit, derived from the History of Genesis, wherein it stands delivered that Eve was framed out of a Rib of Adam; whence it is concluded the sex of the man still wants the rib that our father lost in Eve. And this is not only passant with the many, but was urged against Columbus, in an anatomy of his at Pisa, where, having prepared the skeleton of a woman that chanced to have thirteen ribs on one side, there arose a party that cried him down, and even unto oaths affirmed, this was the rib wherein a woman exceeded. Were this true, it would ocularly silence that dispute out of which side Eve was framed; it would determine the opinion of Oleaster, that she was made out of

\* Examiner Newspaper.

the ribs of both sides, or such as from the expression of the text maintain there was a plurality of ribs required; and might indeed decry the parabolical expression of Origen, Cajetan, and such as fearing to concede a monstrosity, or mutilate the integrity of Adam, preventively conceive the creation of thirteen ribs \*."

But this "will not consist with reason or inspection," which prove that both man and woman have on each side twelve ribs; seven true, which are fixed to the breast-bone as well as to the back-bone; and five false ribs, which are merely fixed to the back.

# VENTRILOQUISM.

What reference the word Ventriloquism can possibly bear to a faculty whereby the whole mystery is performed by the muscles of the throat, I am at a loss to know; whereas, by the etymology, one might fairly presume that that indolent organ the belly, whose province, proverbially, is to do nothing but eat, were now about to assume a new privilege, break silence, and talk. At all events, no matter how the sound be generated, the artist has positively no control over its transmission; and although indistinctness of utterance may create a sort of impression of distance, yet for the rest of the deception, the hic-et-ubique sensation of a voice proceeding down the chimney, or upwards through the window, such fantasies exist, even to their unlimited extent, solely in the imagination of the hearer, A familiar, or doll, is an indispensable member of a Ventriloquist's establishment; and, for aught we know to the contrary, the Grecian sage, with his demon, was merely a Ventriloquist; or, at all events, an autoloquist, or thinker aloud. The author then notices an occasion, when the office was performed by a small wooden effigy, in likeness of an old man with a wig, whose lips, when supposed to speak, moved extremely naturally; so as by alluring the eye to a definite point, effectually to imbue every spectator with a notion of reality †.

# MISTAKES IN NATURAL HISTORY.

How continually are the Nurserymen and Gardeners of this country complaining of extensive damage done to their crops and their fruit-trees by different species of Insects!

> \* Vulgar Errors, book vii. c. ii. p. 394. † Sir George Head's Home Tour.

Yet, these very insects, from being called by vulgar provincial names, are almost totally unknown to naturalists, who cannot, therefore, supply that information which is desired. It is surely not too much to expect that a gardener should be able to tell the difference between a beetle and a fly; between an insect with four wings, and one Yet so little has this information been thought of among the generality of this profession, that not one in twenty has any knowledge on the subject! Country gentlemen complain of their fruit being devoured by birds, and orders are given for an indiscriminate destruction of birds' nests: the sparrows, more especially, are persecuted without mercy, as being the chief aggressors; while the robin redbreast, conceived to be the most innocent inhabitant of the garden, is fostered and protected. Now, a little acquaintance with the Natural History of these two birds would set their characters in opposite lights. The sparrows, more especially in country situations, very rarely frequent the garden; because, grain being their chief food, they search for it round the farmyard, the rick, and the stable: they resort to such situations accordingly. The robins, on the other hand, are the great devourers of the small fruits: they come from the nest just before the currants and gooseberries are ripe, and they immediately spread themselves over the adjacent gardens, which they do not quit so long as there is anything to pillage. It may appear strange, as it certainly is, that no writer on our native birds should have been aware of these facts; but it is only a proof how little those persons, who are, nevertheless, interested in knowing such things, attend to the habits and economy of beings continually before their eyes. In like manner, we protect blackbirds for their song, that they may rob us of our wall and standard fruits with impunity. It behoves every one to show humanity to animals, although we are authorised and justified in destroying such as are found by experience to injure our property. Under this latter head, however, we are committing so many mistakes, that, ere long, some of the most elegant and interesting of our native animals will probably be extirpated. Country gentlemen give orders to their gamekeepers to destroy all "vermin" on their preserves; and these menials, equally ignorant with their masters of what "vermin" are really injurious, com-

mence an indiscriminate attack upon all animals. jay, the woodpecker, and the squirrel, three of the most elegant and innocent inhabitants of our woods, are doomed to the same destruction as the stoat, the polecat, and the hawk. Yet these former peaceful denizens of our woods are destroyed and exterminated, from sheer ignorance of the most unquestionable facts in their history. The jay, indeed, is said to suck eggs; but this is never done except in a scarcity of insect food, which rarely, if ever, happens. woodpecker lives entirely upon those insects which destroy trees, and is therefore one of the most efficient preservers of our plantations; while the squirrel feeds exclusively on fruits and nuts. To suppose that either of these are prejudicial to the eggs or the young of partridges and pheasants, would be just as reasonable as to believe that goatsuckers milked cows, or that hedgehogs devoured poultry\*.

### THE LION.

THE Lion has been styled "The King of the Beasts," from his surpassing in physical strength all other animals. His generosity and courage are more doubtful. Mr. Burchell, the traveller in Africa, says: "when men first adopted the Lion as an emblem of courage, it would seem that they regarded great size and strength as indicating it; but they were greatly mistaken in the character they have given to this indolent, skulking animal; and have overlooked a much better example of true courage, and of other virtues also, in the bold and faithful dog." Still, very different accounts are given by travellers of the cruelty or generosity of the Lion's nature, which result, in all probability, from a difference in time or circumstances, or the degree of hunger which the individual experienced when the respective observations were made upon him.

The Lions of Lord Prudhoe, in the British Museum, are the best sculptured representations of the animal in this country; although the Lion is our natural hieroglyphic, and there are many hundred statues of him, yet not one among them all appears without a defect, which makes our representations of him belong to the class canis, instead of felis—a fault not found in any Egyptian sculpture.

<sup>\*</sup> Cabinet Cyclopædia of Nat. Hist.
† M. Bonomi; Proceedings of the Royal Society of Literature, Jan.
9, 1840.

## UNTAMEABLE HYÆNA.

Colonel Sykes has taken some pains to correct the Popular Error respecting the ferocious and untameable disposition of the Hymna. In India, the Colonel possessed a female cub, which was allowed to run about the house, and would play with the sailors on board ship: indeed, it was as playful and good-humoured as a puppy. Subsequently, Colonel Sykes placed this Hymna in the gardens of the Zoological Society; and there, when fullgrown, it fondly recognized its master by rubbing its head, neck, and back against his hand\*.

Cuvier states that, in the day-time, the cage of a Striped Hyena may be entered with impunity, when it will fawn upon those it knows; "and, were it not for the prejudices of the public on this subject, a Hyena thus tained might be entrusted with as much liberty as a com-

mon dog.

"The laughing Hyæna" may be traced to a belief among the Greeks and Romans, that the Hyæna could imitate the human voice, and charmed shepherds, so as to

rivet them to the spot on which they stood.

Pliny, from the great strength of the Hyæna's neck, believed it to consist of only one jointless bone; and further, he credited the efficacy of the neck in magical invocations. A relic of this superstition lingers among the Arabs, who, according to Shaw, when they kill a Hyæna, bury the head, lest it should become the element of some charm against their safety and happiness.

# THE ELEPHANT.

The Elephant has superstitiously been made an object of veneration, from an exaggerated notion of his intelligence. Indeed, he appears more sagacious than he really is, because the facial line, or the vertical height of the skull, when compared with its horizontal length, is elevated by causes which have no connexion with the volume of the brain. The stories of Elephants dancing upon ropes at Rome to gratify Nero and Galba, are examples of this exaggeration. Sir Thomas Browne terms "grey-headed errors," the absurd notions that elephants had no joints and could not lie down, but slept against a tree, which being almost sawn asunder by the hunters, the beast fell with the tree, and was securely captured.

<sup>\*</sup> Proceedings of the Zoological Society, 1833.

That Elephants were formerly used in war is well known; but the common representation of the Elephant bearing a castle, conveys a very erroneous notion of the matter. Sir Thomas Browne observes: "the Pictures of Elephants with Castles on their Backs, made in the form of land castles, or stationary fortifications, and answerable unto the arms of Castle, or Sir John Old Castle; whereas, the towers they bore were of wood, and girt unto their bodies; as is delivered in the books of Maccalees, and as they were appointed in the army of Antiochus."

In an engraving of Kublai Khan, in his wooden castle, borne upon the backs of four elephants, in the thirteenth century, the "castle" is of square shape, open at the sides, with a semicircular roof, bearing the imperial standard; and, altogether, more resembling a roofed how-

dah than a castle or fortress built of stone,

# SLOW HORSES.

The horse-jockey runs his hand down the Horse's neck in a knowing way, and says, "This Horse has got a heavy shoulder: he is a Slow Horse." He is right; but he does not understand the matter. It is not possible that the shoulder can be too much loaded with muscle, for muscle is the source of motion, and bestows power. What the jockey feels, and forms his judgment on, is the abrupt transition from the neck to the shoulder, which, in a horse for the turf, ought to be a smooth, undulating surface. This abruptness, or prominence of the shoulder, is a consequence of the upright position of the scapula, or shoulder-blade: the sloping and light shoulder results from its obliquity. An upright shoulder is the mark of a stumbling horse: it does not revolve easily to throw forward the footh.

# WHITE-HOOFED HORSES,

The rejection of Horses with White Legs and feet is mostly considered a matter of caprice, though the distinction is reasonable enough. Even in a wet soil and climate, white hoofs are more brittle and more liable to accident and lameness than black ones; and in the stony and more arid soils and climates, white hoofs do not stand nearly so well, and are much more liable to break and contract than those of a dark colour t.

\* Vulgar Errors, b. iv. c. xix. p. 304, | Sir Charles Bell's Bridgewater Treatise.

1 1664.

# THE VAMPIRE BAT

Has been accused of destroying men and animals by sucking their blood; but "the truth," says Cuvier in his Règne Animal, "appears to be that the Vampire inflicts only small wounds, which may, probably, become inflammatory and gangrenous from the influence of climate."

# LONGEVITY OF THE DEER.

The traditional opinion that the Deer sometimes attains the age of upwards of a hundred years, is not worthy of countenance. In the superstitions of the Highlands of Scotland, however, are some arguments in favour of the longa et cervina senectus of Juvenal; and the Gaelic adage, "Thrice the age of a man is that of a Deer," is supported by marvellous stories, attested by chiefs of honour and veracity. With all his respect for marvellous traditions, Mr. Scrope, in his work on Deer-stalking, does not hesitate to inform us, that all the accounts he has received from park-keepers in England, where there are red deer, contradict their supposed longevity, and establish the fact that the longest-lived Deer has not exceeded twenty years of age\*.

### WOLVES IN ENGLAND.

The naturo-historical accounts of the Wolf tell us that it was extirpated in Britain by the salutary edicts of King Edgar, who accepted their tongues and heads as tribute, or as a commutation for certain crimes. This appears to be a Vulgar Error; for in the reign of Edward I. wolves had increased to such a degree that officers were appointed to promote their destruction, and lands were held by hunting them and destroying them.

# TARTARIAN LAMB.

In many books of natural history we find engraved the "Seythian Lamb," sometimes the "Tartarian Lamb:" it was said to be an animal, and although rooted to the ground, to have so deadly an effect on vegetation in its neighbourhood, as to prevent grass of any kind from growing. So singular a creature, of course, attracted great at

\* Edinburgh Review, No. exlili.

tention, and it was thought worthy the notice of the Royal Society; since which it has been discovered to be a species of moss, curiously twisted, so as to have some resemblance in form to an animal.

### THE SLOTH.

The excellent account of this animal, in Waterton's Wanderings in South America, corrects the endless Errors of naturalists, with respect to its natural history,—errors which have been continued even to the present day.

"Those who have written on this singular animal, (says Mr. Waierton,) have remarked that he is in a perpetual state of pain; that he is proverbially slow in his movements; that he is a prisoner in space; and that as soon as he has consumed all the leaves of the tree upon which he had mounted, he rolls himself up in the form of a ball, and then falls to the ground. This is not the case. If the naturalists who have written the history of the Sloth had gone into the wilds in order to examine his haunts and economy, they would not have drawn the foregoing conclusions; they would have learned that, though all other quadrupeds may be described while resting on the ground, the Sloth is an exception to this rule, and that his history must be written while he is in the tree. This singular creature is destined by Nature to be produced, to live, and to die, in the trees. It mostly happens that Indians and Negroes are the people who catch the Sloth and bring it to the white man; hence it may be conjectured that the erroneous accounts we have hitherto had of the Sloth have not been penned with the slightest intention to mislead the reader, or give him an exaggerated history, but that these Errors have naturally arisen, by examining the Sloth in those places where Nature never intended that he should be exhibited."

With respect to the alleged tardiness, from which the Sloth has been erroneously named, Mr. Waterton states: "He travels at a good round pace, and were you to see him pass from tree to tree as I have done, you would never think of calling him a Sloth,"

## THE CAMEL.

CAMBLE are very patient under thirst: it is a Vulgar Error, however, to believe that they can live any length of time without water. They generally pine, and die on the fourth day; and, with great heat, will even sink sooner \*.

There is no reason for supposing this useful animal to be exclusively an inhabitant of the Desert. The Camels in European Turkey are indigenous, and are said to be of an excellent stock †.

### THE CAT.

It is a very prevalent notion that Cats are fond of sucking the breath of infants; and consequently, of producing disease and death. Upon the slightest reflection, nothing can be more obvious than that it is impossible for a Cat to suck an infant's breath, at least, so as to do it any injury; for even on the supposition that it did so, the construction of its mouth must preclude it from interrupting the process of breathing by the mouth and the nose at the same time. This vulgar Error must have arisen from cats nestling about infants in beds and cradles, to procure warmth.

Cats are generally supposed to be subject to fleas; but this idea is erroneous: the small insect which infests the half-grown kitten being a totally different animal, exceedingly swift in running, but not salient, or leaping, like the flea.

# THE WHALE NOT A FISH.

Although the home of the Cetaceæ, (to which class of animals whales belong,) be entirely in the waters, they have several features in common with the larger quadrupeds. They belong to the Linnæan class of Mammalia, or suck-giving animals: they produce their young alive; their skin is smooth, and without scales; their blood warm, and the flesh tastes somewhat like coarse beef. They have a head with two ventricles, and lungs through which they respire; and being unable to separate the air from the water, as fishes do by means of their gills, they must come to the surface in order to breathe. It is thus, by no means strictly scientific to call the Whale a Fish; yet he is entirely an inhabitant of the sea, having a tail, though placed differently from that of ordinary fishes, while his front limbs much more resemble fins than legs, and are

<sup>\*</sup> Lieut. Burnes's Travels into Bokhara.
† Southgate's Travels in Turkey and Persia.

solely used for pawing the deep. Hence, the yulgar, following a natural and descriptive classification, obstinately continue to give the name of Pish to the Whale\*.

In representations of the Whale, we generally see two spouts of water mounting into the air from his nostrils, when he is above the water, like artificial fountains. These are occasioned merely by the mode in which the animal breathes; and it is an Error to suppose that he ejects the water through the nostrils. It is, on the contrary, the creath which is thus discharged, mixed with mucous matter, and perhaps, the foam of a wave which may happen to dash over them. When this vehement breathing or blowing is performed under the surface, much water is thrown out into the sir.

The Whale too has been regarded as an ill omen. Aubrey says: "a little before the death of Oliver Protector, a Whale came into the river Thames, and was taken at Greenwich. 'Tis said, Oliver was troubled at it."

# JONAN'S WHALE AND GOURD,

The Rey. Dr. Scot, of Corstorphine, in a paper read before the Wernerian Society, in 1828, has shown that the great fish that swallowed up Jonah could not be a Whale, as often supposed, but was, probably, a white shark. It is true that "a Whale" is not used in the text of Jonah, but "a great fish;" still "a Whale" is mentioned in the reference to this passage which our Baviour makes in Matt. xxii. 40.

While the Greek version makes the plant under which Jonah sat a Courd, the Vulgate reckons it a species of Lvy. The Castor-oil tree, with its broad palmate leaves, has, however, been more closely identified with "the Courd" of Jonah; which is corroborated by local traditions, as well as by the fact that it abounds near the Tigris, where it sometimes grows to a size more considerable than it is commonly supposed to attain.

## THE BEAVER.

Or the sagacity and even social polity of the Beaver, many wonderful tales have been told. It has been represented as an accomplished architect, gifted by Nature with a head to design, and instruments to execute well-planned

4 Hugh Murray, P.H.S.R.

houses containing chambers, each set apart for its appropriate purpose. The lovers of the marvellous, when they had once given the reins to their imagination, soon converted the tail into a sledge and a trowel, and astonished the world with an elaborate account of the mode in which the plaster was laid on with this, according to them, masonic implement; nay, they even turned it into an instru-With it the overseers, (such officers, acment of office. cording to the accounts given of their civil institutions, it was the custom of the Beavers to appoint,) were said to give the signal to the labourers whose employment they superintended, by slapping it on the surface of the water. All this, and more than this, has faded away before the light of truth. Their houses have sunk into rude huts, in the construction of which their tails are never used, being altogether unfitted for such operations; and for mixing up the mud, the Beaver employs the fore-paws and the mouth. The pile-driving, (for, among other feats, the Beaver was said to drive stakes of the thickness of a man's leg, three or four feet into the ground) has turned out to be a mere fable; and the polity of Beavers has proved to be nothing more than a combination of individuals, such as we see among many of the inferior animals, impelled by an instinct common to all who perform a task in the benefit of which all participate\*.

# THE HEDGE-HOG SUCKING COWS.

The idle stories that the persecuted Hedge-hog sucks Cows is thus quaintly refuted by an old writer. In the case of an animal giving suck, "the teat is embraced round by the mouth of the young one, so that no air can pass between; a vacuum is made, or the air is exhausted from its throat, by a power in the lungs; nevertheless, the pressure of the air remains still upon the outside of the dug of the mother, and by these two causes together, the milk is forced into the mouth of the young one. But a Hedge-hog has no such mouth, as to be able to contain the teat of a Cow; therefore, any vacuum which is caused in its own throat, cannot be communicated to the milk in the dug. And, if he is able to procure no other food but what he can get by sucking Cows in the night, there

\* Penny Cyclopedia, voce Beaver.

is likely to be a vacuum in his stomach too"." Yet, according to Sir William Jardine, the Hedge-hog is very fond of eggs; and is, consequently, mischievous in the game preserve and hen-house.

# SINGING-BIRDS IN THE OLD AND NEW WORLD.

It is a very unfounded notion, that in the New World, the brilliant hues of the Birds takes the place of the power of song. On the contrary, it would appear from Wilson's American Ornithology, that the American song-birds are infinitely more numerous than those of Europe, and many of them superior to our most celebrated songsters.

# BIRDS EGGS.

In Gloucestershire, exists a foolish superstition respecting the Eggs of Birds: the boys may take them unrestrained, but their mothers so dislike their being kept in the house, that they usually break them. Their presence may be tolerated for a few days; but by the ensuing Sunday, they are frequently destroyed, under the idea that they would otherwise bring bad luck, or prevent the coming of good fortune: as if in some way offensive to the domestic duties of the hearth!

### CUCKOO SPITTLE.

This absurd name has been given to the froth seen upon blades of grass, and in great abundance upon willow-trees, from a notion that it is the Spittle of the Cuckoo, on account of its being most plentiful about the arrival of that bird. This froth is, however, expelled by an insect named Cicada spumaria, which has first sucked in the sap of the tree. A stupid fellow seeing this froth on almost every blade in his garden, wondered where all the cuckoos could be that produced it!

### THE TURKEY.

Own name for this bird, one of the useful benefits conferred by America on the rest of the world, is very absurd: as it conveys the false idea that the Turkey originated in Europe or Asia, owing to the ridiculous custom formerly,

\* New Catalogue of Vulgar Errors. By Stephen Fovargue, A.M. 1706, p. 186.
† Magazine of Natural History. ‡ Journal of a Naturalist.

Daniel Coole

of calling every foreign object by the name of Turk, Indian, &c. The fact is, the Turkey is a native of the middle and northern parts of America, and was brought to Germany in 1536, where it was first domesticated in Europe.

### THE RAVEN.

The Raven is one of the chosen birds of superstition, from its supposed longevity, and its frequent mention and agency in holy writ; the obscure knowledge we possess of its powers and motives, and the gravity of its deportment, like an all-knowing bird; which circumstances have acquired for it, from very remote periods, the veneration of mankind. The changes in our manners and ideas in respect to many things, have certainly deprived ravens of much of this reverence; yet the almost supernatural information which they are reputed to obtain of the decease, or approaching dissolution, of an animal, claims still some admiration for them. This supposed faculty of "smelling death," formerly rendered their presence, or even their voice, ominous to all, as

"The hateful messenger of heavy things, Of death and dolour telling;"

and their unusual, harsh croak, still, when illness is in the house, with some timid and affectionate persons, brings old fancies to remembrance, savouring of terror and alarm\*.

### DISAPPEARANCE OF SWALLOWS IN WINTER.

The old story of Swallows passing the Winter in a state of torpidity at the bottom of rivers, lakes, and ponds, has been frequently agitated; asserted to be a fact by one party, and totally disproved by another. A distinguished naturalist thus succeeds in settling the question: "Swallows, being much lighter than water, could not sink in clusters, as they are represented to do. If their feathers are previously wetted, to destroy their buoyant power, in what manner can they resist the decomposing effect of six months' maceration in water, and appear in Spring as fresh and glossy as those of other birds? Swallows do not moult while they remain in an active state; so that, if

\* Journal of a Naturalist.

15

they submerge, they either do not moult at all, or perform the process under water. In the case of other torpid animals, some vital actions are performed, and a portion of oxygen is consumed; but in the submerged swallows, respiration and, consequently, circulation, must cease. Other torpid animals, too, in retiring to their winter slumbers, consult safety; while the swallow, in sinking under the water, rushes to the place where the otter and pike commit their depredations. It is now ascertained that migration is, in ordinary cases, practised by the swallow; yet their submersion has been believed by many naturalists,—as Klein, Linnæus, and others."\*

# THE PELICAN.

Sir Thomas Browne says: "In every place, we meet with the picture of the Pelican, opening her breast with her bill, and feeding her young ones with the blood distilling from her. Thus, it is set forth, not only in common signs, but in the crest and scutcheon of many noble families; hath been asserted by many holy writers, and was an hieroglyphick of piety and pity among the Egyptians; on which consideration they spared them at their tables†." Sir Thomas refers this Popular Error to an exaggerated description of the Pelican's fondness for her young, and is inclined to accept it as an emblem "in coatarmour," though with great doubt.

By reference to the actual economy of the Pelican, we find that, in feeding the nestlings,—and the male is said to supply the wants of the female when sitting, in the same manner,—theunder mandible is pressed against the neck and breast, to assist the bird in disgorging the contents of the capacious pouch; and during this action the red nail of the upper mandible would appear to come in contact with the breast, thus laying the foundation, in all probability, for the fable that the Pe ican nourishes her young with her blood; and for the attitude in which the imagination of painters has placed the bird in books of emblems. &c., with the blood spirting from the wounds made by the terminating nail of the upper mandible into the gaping mouths of her offspring.

<sup>\*</sup> Dr. Fleming, Philosophy of Zoology. | Vulgar Errors, b. v. c. i. p. 271.

In A Choice of Emblems and other Devices, by Geoffrey Whitney, 1586, beneath the cut are the following lines:—

"The pelican, for to revive her younge,
Doth pierce her breste, and geve them of her blood.
Then searche your breste, and as you have with tonge,
With penne procede to do your countrie good:
Your zeal is great, your learning is profounde,
Then help our wantes with that you do abound."

Sir Thomas Browne hints at the probability of the Pelican occasionally nibbling or biting itself on the itching part of its breast, upon fulness or acrimony of blood, so as to tinge the feathers in that part. Such an instance is recorded by Mr. G. Bennett, of a Pelican living at Dulwich, which wounded itself just above the breast; but no such act has been observed among the Pelicans kept in the Zoological Gardens, and elsewhere; and the instance above recorded was, probably, caused by local irritation.

### THE GOAT-SUCKER.

THE term Goat-sucker has been vernacularly applied to the European-Night jar, or Night-swallow, from the absurd idea of this bird sucking goats; whereas, according to Mr. Rennie, "it is as impossible for the Night jar to suck the teats of cattle, (though most birds are fond of milk), as it is for cats to suck the breath from sucking-infants, of which they are popularly accused."

## THE NIGHTINGALE.

It is a vulgar Error to suppose that the song of the Nightingale is melancholy, and that it only sings by night. There are two varieties of the Nightingale, one which sings both in the night and day, and one which sings in the day only.\*

# HUMMING-BIRDS.

THESE splendid birds have generally been stated to feed only on the juice of flowers; whereas, it has lately been proved that they eat insects, and that the chief object of their fluttering about flowers is more for the purpose of their obtaining insect food, than for the alleged object of sucking the honey from the nectaries of the plants.†

\* M. Wichterich, of Bonn. † Prof. Traill; Trans. Wernerlan Society, 1840.

# THE BIRD OF PARADISE.

This bird being worn as an ornament, on account of its beautiful plumage, when sold for such purpose has its feet cut off by the Papous of New Uninea, which led our credulous forefathers to believe the feet to be actually wanting in the bird. This belief may likewise have been fostered measual observers, by the peculiar habit which the Paradise-bird has of shunning the bottom of its cage, as if afraid of soiling its delicate plumage; although, like the crow. (which it resembles in many respects), it has feet formed for walking.

Resides the absence of legs, the following wonders were once credited of this bird: — That the egg was laid in the air, and there hatched by the male in an oriflee of his body; that it hung itself by the two long feathers of its tail on a tree when sleeping; that it never touched the ground during any period of its existence, and fed wholly on dew. The Indians also believe, that the leader or king of the Bird-of-Paradise is black with red spots, and that he soars away with the rest of the flock, which, however, never quit him, but settle where he does.

ALTHOUGH the poets have adopted these birds as emblems of faithfulness in love, Blumenbach assures us, that "as to its highly-prized fidelity and chastity, setting aside idle fables, the Turtle-dove presents nothing superior to other birds which lead the same mode of life."

TURTLE-DOVES.

### SWANS.

"The Swan with Two Necks" tavern sign, would lead weak persons to credit such an anomaly; whereas, it is, in itself, a corruption of "two nicks," or notches on the bill, by which means swans were formerly marked by their owners. But this custom becoming almost obselete, and the term not being understood, the sign-painter invented the two-necked bird.

The "Swan-hopping" of the London citizens is a corruption of Swan-upping, or the taking up of Swans on the river Thames.

\* J. R. Forster, on Paradise Birds and the Phonix; Indian Zoology, Italie, 1705. B. 26.

# THE HALCYON.

It was anciently believed that during the Halcyon Days, or that time when the Halcyon, or Kingfisher, is engaged in hatching her eggs, the sea, in kindness to her, remained so smooth and calm, that the mariner might venture on the main with the happy certainty of not being exposed to storms or tempests.

The Earl of Kent, in King Lear, speaks of rogues who

"turn their Haleyon beaks With every gale and vary of their masters." (ii. 1.)

This is an allusion to the old superstitious belief that a dead Kingfisher, suspended from a cord, would always turn its beak to the direction from whence the wind blew. The earliest mention of this, after Shakspeare's allusion, seems to be in Marlow's Jew of Malta, 1633:

"But how now stands the wind?
Into what corner peers my Haleyon's bill."

"I have once or twice," says Mrs. Charlotte Smith, "seen a stuffed bird of this species hung up to the beam of a cottage ceiling, and imagined that the beauty of the feathers had recommended it to this sad pre-eminence, till, on enquiry, I was assured that it served the purpose of a weather-vane; and though sheltered from the immediate influence of the wind, never failed to show every change by turning its beak to the quarter whence the wind blew"."

## AFFECTION OF FISHES.

It is asserted by naturalists, that no Fishes are known to take any care of their offspring. This statement is, however, erroneous; for two species of hassar, found in Africa, make a regular nest, in which they lay their eggs in a flattened cluster, and cover them over most carefully. Their care does not end here: they remain by the side of the nest till the spawn is hatched, with as much solicitude as a hen guards her eggs; both the male and female steadily watching the spawn, and courageously attacking any assailant. Hence the negroes frequently take them by putting their hands into the water close to the nest, on agitating which the male hassar springs furiously at them, and is thus captured.

1 Zoological Journal, No. XIV.

<sup>\*</sup> From a paper "On Shakspeare's Knowledge of Natural History." By J. H. Fennell; Gent. Mag.

## COLOUBS OF THE BOLPHIN.

The changes of hue displayed by the dying Dolphin are peculiar; but have been much exaggerated by the poetical descriptions of travellers. Soon after the fish has been removed from the water, the bright yellow with rich blue spots, which constitutes the normal colour of the animal, is exchanged for a brilliant silver, which a short time after death passes into a dull grey, or lead colour. The original golden hue occasionally revives in a partial manner, and appears above the silver field, producing a very interesting display of colours; but the diversity of tints is not greater than here described\*.

# THE JOHN DORY.

BIR JOSEPH BANKS's observation, that the name of this fish should be "admee," from its being worshipped, is needlessly far-fetched. In all the Italian ports, it is called Janttore, or the gate-keeper, by which title St. Peter is most commonly designated among Catholics, as being keeper of the keys of Heaven. In this respect, the name tallies closely with the superstitions legend of this being the fish out of whose mouth the Apostle took the tribute-The breast of the animal is certainly much flattened; but, unfortunately for the credit of the monks, this feature is exhibited in equally strong lineaments, by at least twenty other varieties of fish. As for the name, the English sailors naturally substituted John Dory for the Italian Januore. Quin was, doubtless, quizzing this corruption when he proposed "Ann Chovy " as the best companion for "John Dory."

# GRAB'S EVES.

The two rounded masses, one on each side of the stomach of the erab, have received the absord name of "Crab's Eyes," Nothing can be more erroneous; these rounded masses being magazines of carbonate of lime, which the Crab has collected for forming itself a new shell.

# THE GORDIAN WORM-EELS,

THERE IS a ridiculous belief in some parts of the country, that the hairs from a horse's tail, when dropped into the water, become endued with life; in England, this trans-

\* Narrative of a Whaling Voyage round the Globe, from 1836 to 1837, By F. D. Bennett, Esq., F.R.G.S. &c.,

formation is supposed to produce the Gordius aquaticus, a small thread-like worm, of a red colour, which is found in groups knotted together in the water. In Scotland, we understand, the product of the hair is supposed to be a small Eel; we need scarcely say that both these ideas are perfectly erroneous. It is certainly puzzling, at first sight, to understand in what manner ponds or other pieces of water, in which previously no fish were known, should be suddenly found full of small eels; but the difficulty vanishes on referring to the natural history of the eel tribe. There it will be seen, that they, (the young eels in particular,) perform very long migrations over the moist grass, chiefly in the night-time; even full-grown eels will leave their native water after dark in search of food.

# INSECTS FOREBODING DEATH.

Ir has been observed that Fleas and other parasitic insects never infest a person who is near death; and so frequently has this been remarked, that it has become one of the popular signs of approaching dissolution. This is, in all probability, caused by the alteration in the state of the fluids immediately under the skin, either in quality or quantity. It must be upon the same principle that women and children are always more infested with the bed-bug and other parasitic insects, than old men, whose sub-cutaneous fluids are scanty, and their skin, in consequence, more rigid and dry\*.

# THE DEATH'S-HEAD MOTH.

The yellow and brown-tailed Moths, the Death-watch, and many other insects, have long been the subjects of man's fear; but the dread excited in England by the appearance, noises, or increase of insects is petty apprehension compared with the horror that the presence of the Death's Head Moth, (Acherontia etcopos,) occasions to some of the more fanciful and superstitious natives of northern Europe. In German Poland, this insect is very common; and it is here called the "Death's Head Phantom," the "wandering Death Bird," &c. The markings on the back represent to a fertile imagination, the head of a perfect skeleton, with the limb-bones crossed beneath; its cry becomes the voice of anguish, the moaning of a

\* Insect Miscellanies, p. 30.

child, the signal of grief; it is regarded, not as the creation of a benevolent being, but as the device of evil spirits, spirits, enemies to man, conceived and fabricated in the dark; and the very shining of its eyes is supposed to represent the fiery element, whence it is thought to have proceeded. Flying into the apartment in the evening, it sometimes extinguishes the light; foretelling war, pestilence, famine, and death, to man and beast. This insect has also been thought to be peculiarly gifted in having a voice, and squeaking like a mouse, when handled or disturbed; but, in truth, no insect that we know of has the requisite organs to produce a genuine voice; it emits sounds by other means, probably all external\*

## THE DEATH-WATCH.

THE Death's head Moth is not the only insect whose sound alarms the superstitious. Insects, which are much more common, though, from their minuteness, not so often heard, often strike the uneducated with terror as the messengers of death. We refer to the sound which most of our readers may have heard issuing from old timber, or old books, resembling the ticking of a watch, and hence popularly called the Death-watch.

Sir Thomas Browne considered this marvellous story of great importance, and remarks that the man "who could eradicate this Error from the minds of the people, would save from many a cold sweat the meticulous heads of nurses and grandmothers;" as such persons are firm in the

belief that

" The solemn Death-watch clicks the hour of death."

Swift endeavoured to perform this useful task by means of ridicule, thus:

"A wood worm

That lies in old wood, like a hare in her form, With teeth or with claws it will bite, it will scratch, And chambermaids christen this worm a death-watch; Because like a watch it always cries click. Then woe be to those in the house that are sick! For, sure as a gun, they will give up the ghost, If the maggot cries click when it scratches the post. But a kettle of scalding hot water injected, Infallibly cures the timber affected:

The omen is broken, the danger is over,
The maggot will die, the sick will recover."

<sup>\*</sup> Abridged from the Journal of a Naturalist.

Seriously speaking, a little entomological knowledge will dispel all such fears for ever. It is now a received opinion, adopted upon satisfactory evidence, that the above sound is produced by certain beetles belonging to the timber-boring genus, Anobium; though some tick louder than others. When Spring is far advanced, these insects commence their ticking as a call to each other, which is thus produced: raising itself upon its hind legs, with the body somewhat inclined, it beats its head with great force and agility upon the plane of position; and its strokes are so powerful as to make a considerable impression if they fall upon any substance softer than wood. The general number of distinct strokes in succession is from seven to nine, or eleven. They follow each other quickly, and are repeated at irregular intervals. noise exactly resembles that produced by tapping moderately with the nail upon a table; and when familiarised, the insect will answer very readily the tap of the nail. The superstition that the clicking of this insect is a deathomen is mentioned by Baxter, in his World of Spirits, which obtained currency for its belief upwards of a century\*

# CRICKETS.

It is singular that the House-Cricket should by some weak persons, be considered as unlucky, and by others, a lucky, inmate of a dwelling: those who hold the latter opinion, consider its destruction the means of bringing misfortune on their habitations. "In Dumfries-shire," says Sir William Jardine, "it is a common supersition, that if Crickets forsake a house which they have long in habited, some evil will befall the family; generally, the death of some member is portended. In like manner, the presence or return of this cheerful little insect is lucky, and portends some good to the family."

### THE EAR-WIG.

MANY persons have a dreadful idea of the effect of an Ear-wig getting into the ear, and by penetrating the brain causing madness; this notion is founded on a want of know-

\* In the Frontispiece to the present volume, is a representation of the Death-watch, natural size, and magnified. Blumenbach, we perceive, refers the name of one species to a cause not yet hinted at,—that, when touched, it extends its feet, and lies as though dead, from which state it cannot easily be made to move.

ledge of the construction of the car. If one of these insects should by chance get into the ear, it would no doubt be an unpleasant inmate; but the membranum tympani, the drumhead of the ear, would effectually prevent the progress of the insect; and the unwelcome visitor could be either killed, or dislodged with case by means of a few drops of oil. There is another Error with respect to the Earwig, namely, that it is without wings: this is not the case; it has a very delicate pair of wings, curiously folded up under its short wing-cases.

### THE LANTERN-PLV.

Many years since, Madame Merian, in her splendid work on the Insects of Surinam, stated that the Lantern-fly emitted light strong enough from its lantern-like head to read a newspaper by. This was too pretty a phenomenon to be omitted from any succeeding account of the insect. according to the more recent observations of M. Richard and M. Sieber, and our countryman, Dr. Hancock, the whole statement is erroneous; even the native tribes of Guiana agree in treating the story as fabulous; and Dr. Hancock lately stated to the Zoological Society, that "it seemed to be an invention of Europeans, desirous of assigning a use to the singular diaphanous projection resembling a horn lantern, in front of the head of the insect." Yet, Mr. John Murray, F. L. S., asserts, that he has read a letter by the exclusive light of the lampyris noctiluca, another luminous insect; and that in a dark night he once picked up a lampyris splendidula, which showed him distinctly the hour by a watch.

# THE BIRD-KILLING SPIDER.

The story of a Spider which catches and devours Birds, is likewise believed to have had its origin with Madame Merian, in her work on the Insects of Surinam. The naturalists, Oviedo, Labat, and Rochefort, do not mention any Spider as possessing such habits; the two latter writers only stating, that in the Bermudas there exists a Spider which makes nets strong enough to entangle small birds. Madame Merian, however, asserts, that one Spider not only catches, but devours small birds: and has figured a spider in the set of preying on a humming bird. Now, this particular kind of Spider does not spin a net, but resides in tubes under ground, and in all its movements keeps close to the earth; while humming-birds never perch except on branches. A

living humming-bird, when placed in one of the Spider's tubes, was not only not eaten by the Spider, but the latter actually quitted its hole, which it left in possession of the intruding bird. A geometrical web, spun by the largest spider that spins in the West Indies, may, perhaps, occasionally be strong enough to catch the smaller among the humming-birds; but it is not likely that the spider would eat the birds. A small species of lizard, introduced into one of these nets, was enveloped in the usual manner by the spider; but, as soon as the operation was completed, the insect cut the line and allowed the prisoner to fall to the ground. The existence of any Bird-killing Spider, is consequently, disbelieved by the distinguished naturalist, Mr. MacLeay, who has reported these interesting facts to the Zoological Society.

The Spider to which Madame Merian attributes this bird-killing propensity, in the night-time, destroys the cockroaches in the houses at Surinam. It is never killed by the negroes, who believe that if they were to destroy this Spider, it would cause them to break cups and glasses. Thus, an absurd superstition serves to protect an useful

creature.

# THE TARANTULA SPIDER.

SIR THOMAS BROWNE gravely says: "Some doubt many have of the Tarantula, or poisonous Spider of Calabria, and the magical cure of the bite thereof by music. But, since we observe that many attest it from experience; since the learned Kircherius hath positively averred it, and set down the songs and tunes solemnly used for it; since also some affirm the Tarantula itself will dance upon certain strokes, whereby they set their instruments against

its poison; we shall not at all question it ."

Many years since, an Italian gentleman communicated to Stephen Storace, the celebrated musician, a circumstantial account of the effect of the bite of a Tarantula upon a poor ploughman, and its cure by the tune called "the Tarantella," being played to him, when, after dancing wildly till he was exhausted, he was bled and put to bed, and so recovered; the latter treatment having, doubtless, far more to do with his recovery than the music. Still, the narrator states, that, not knowing the air of "the Ta-

<sup>\*</sup> Vulgar Errors, b. iii, c. xxvii. p 208.

rantella," he tried several jigs, but to no purpose; for the man was as motionless as before, until he caught the pro-

per air.

Blumenbach gives the following explanation of the mystery:—"The fable of the supposed inevitable consequence of the bite, and of the cure by music, may be explained, by supposing that travellers of easy faith have been deceived, partly by the representations of hypochondriacal and hysterical patients, but more commonly by the artifices of beggars. This much is certain, that this Spider, which lives in little holes in fields, may inconvenience the reapers by its bite during harvest; and that, like that of many other insects, its bite may, in the heat of summer, become dangerous, and even cause a kind of chorea, (St. Vitus's dance)."

# BEES.

To enumerate the Errors and superstitions respecting Bees would occupy several pages; so that we can only relate a few instances. In some parts, when any one of the family is buried, as the corpse passes out of the house, every hive is loosened and lifted up; otherwise it is believed that the Bees would die, or desert the hive, and seek other quarters. Another mode of communicating the intelligence to the little community, with due form and ceremony, is to take the key of the house, and knock with it three times against the hive, telling the inmates, at the same time, that the master or mistress, as the case may be, is dead! In Bedfordshire, it is not uncommon for the peasantry to sing a psalm in front of hives of Bees which are not doing well, after which they are believed to thrive!

Bees are likewise believed to grow, from their great difference in size and colour, which is referable to another cause. Bees hatched in very old cells, are smaller; as each maggot leaves a skin behind, which, though thinner than the finest silk, layer after layer contracts the cell, and somewhat compresses the future Bee.

<sup>\*</sup> Manua of Natural History, p. 230.

# GENERAL INDEX.

Adam's Apple, 345 Adder-stone, the, 279 Aged Persons, Temperature of, 5 Airing Rooms, 127 Alchemists, Practices of the, 284, 285 Alexander the Great, Death of, 273 Alexandrian Library, the, 237 Almanac, Moore's, 196 Almanacs, Old. 195 Animals, Fabulous, of the Ancients, Antelope and Unicorn, 335 Antipathies, 21 Antique-Antiquities, 166 Antiquities, Study of, 167 Appetite, False, 43 Apples, Names of, 67 Aqua Tofana, History of, 276 Aqua Vitæ, 109 Aqueducts, Ancient, 165 Arab Horses, 280 Arabs and the Plague, 279 Architecture, "Gothic," 245 Architecture, Saxon, 246 Arithmetic and Algebra, 219 Arithmetic, Learning, 220 Arithmetic, Phraseology of, 221 Ark of Noah, 327 Arrest after Death, 257 Arsenic, Poisoning by, 25 Artichoke, Jerusalem, the, 70 Ass, the Indian, 335, 336 Astrologers not all Impostors, 286 Astrology, Benefits of, 285

Absurd Notions, Universal, 187

Absurdities in Medicine, 189

Bachelor, Origin of the term, 268 Bacon's (Friar) Brazen Head, 298 Bacon, Roger, Doubtful Inventions of, 296

Banstead Mutton, 57 Bantam Cocks, 58 Barometer, Imperfections of the, 315 Barometer and the Wind, 316 Bathing, Cold, 19 Bathing, Warm, 19 Bayarian Broom Girls, 226 Beaver, Habits of the, 354 " Beaver Hats," 151 Bed, a damp one, 23 Beef-eaters, Origin of, 173 Beer, Salt in, 90 Beer turning sour, 90 Bees, Errors respecting, 368 Bees, Keeping, 73 Bells in Churches, 244 Bells, Silver in, 245 Bibles, Entries in, 255 "Billious," the, 44 Bird of Paradise, the, 360 Birds, Destruction of, 347 Birds' Eggs, 356 Birds, Song of, in the Old and New World, 356 Bird-killing Spider, the, 366 Bitter Almonds, 84 Bitters in Porter, 91 Bitters and Tonics, 21 Black Game, 59 Blackness of Skin, Cause of, 14 "Bosom Friend," 204 Boot and Shoe Making, Defects in, 152 Brain, Insensibility of, 8 Brandy, Preserving in, 111 Brass-plate Coal-merchants, 117 Bread, Alum in, 61 Bread, French, 62 Bread, Nourishment in, 60 Bread, Patent, 62 Bread, Potatoes in, 61

Breathing, Difficult, in ascending Mountains, 246
Brewing, Art of, 88
Brewing, Thames Water for, 89
Brewing, Water for, 89
Bricks, Durability of, 162
Brine, Tests of, 86
Britannia Metal Tea-pots, 130
Burial in Cross Roads, 254
Bull-beef, 260
Burial of the Dead, 253
Burning-glasses, accidental, 128
Butcher on a Jury, 259
Butter, Pounds of, 260
Butter, Salt in, 59

Cæsar in Britain, 234 Camels, Thirst of, 352 Camoos and Intaglios, Conversions of, 312 Candles, Store, 112 " Cannel Coal," 117 Cape Wines, Failure of, 105 Capital Punishments, the Inefficacy of, 263 Cards, Invention of, 200 Cat sucking Breath of Children, 353 Cats and Valerian, 192 Cause and Effect, 212 Caverns, Origin of, 324 Cellars, Coolness of, 126 Champagne, Frothing and Still, 101 Chance, Doctrines of, 199 Charcoal and Tainted Meat, 55 Charcoal Tooth-powder, 22 Charity, What is it? 205 Charles I., Statue of, at Charing Cross, 308 Chemistry, Domestic, 158 Children, Love of, 214 Chimneys, Draft in, 120 Chimneys, Tall, 120 Chinese Females, Feet of, 11 Cider and Perry, Manufacture of, 92 Civilization, Benefits of, 207 Claret, Fine, 100 Claret and the Gout, 101 Classics, Cultivation of the, 215 Classics, Utility of the, 215 Clothing, Summer, 130 Clothing, White, Warmth of, 130 Clothing, Woollen 129

Coals at Blackheath, 131 Coal and Coke, Economy of, 118, Coals more valuable than Gold, Coals, Perpetuity of, 116 Coals, Sale of, 117 Coals, Waste of, 11d Coal-mines, British, Exhaustion of, Cockneys, who are? 228 Codlins, 67 Coffee after Dinner, 84 Coffee " Herry," the, #1 Coffee, Chicorée in, 82 Coffee, to make, 82 Coffee, Prejudices against, 83 Coffee, Roasting, 82 Coffee, "Turkey," 81 Coffee-making in France, 83 Coins, Portraits on, 179 Commerce, past and present, 155 Common Rights, 258 "Contrast of Colours," 155 Cookery, Errors of, 45 Cookery, French and English, 45 Cookery, Good and Bad, 193 Cookery, Plain, 45 Cookery, Rationale of, 194 Copper in Meat, 49 Copper Saucepans, Danger from, 24 Copper Springs, 134 15 Cotton, Poisonous, 149 Crabs' Eyes, 362 Credulity of Great Minds, 291 Credulity and Superstition, 213 Creole, the term, 345 Orickets in a House, 365 Criminal hanging an Hour, 250 Criminal Trial, 262 Crocodiles and Dragons, 344 Cross, Signature of the, 237 Crystal, Varieties of, 143 Ouckoo Spittle, 356 Cure-mongering Quacks, 191 Cures, Imaginative, 191 Curfey, the, 175 Cutlory Marks, 135 Cutlery, Town-made, 135 Dark Lanthorn, carrying, 256

Dead Languages, Quotation of the

216

Death, Fear of, 33 Death, Fear of, natural to Man, 38 Death by Lightning, 36 Death, Nature of, 32-34 Death not Pain, 38 Death, Uncertain Signs of, 36 Death-bed, Sufferings of the, 33 Death's-head Moth, the, 363 Death-warrants, 284 Death-watch, the, 364 Deeds executed on a Sunday, 259 Deer, Longevity of the, 351 Diamond, Hardness of the, 146 Diamonds, Prices of, 147 Diamond, Properties of the, 145 Dietetics, 40 Dining Alone, 194 Dinners, Plain, 47 Diving-bell, Invention of the, 321 "Does the Water boil?" 123 Dolphin, Colours of the, 362 Dorking Fowls, 57 Doubt, Benefit of, 213 Dragon of Wantley, the, 343 Dragons, Origin of, 343 Dreams, Morning, 30 Dreams, Traces of, 30 Dress, Colours for, 15 Drop Measure, 192 Drowning, Causes of, 39 Drowning, Recovery from, 20 Druidical Circles, Counting, 297 Drunkards, Liability of, 257 "Dutch" Clocks and "Toys," 228 Dyes, Poisonous, 152

Ears, Long, 12 Eating; Rule of, 43 Eau de Cologne, 141 Eel, Migrations of the, 363 Earthenware Boats ascribed to the Egyptians, 309 Ear-wig, the, 365 Education, Benefits of, 214 Education, Public, 218 Edward the Black Prince, 302 Eggs, to Boil, 58 El Dorado of Sir Walter Raleigh, 290 Elephant, Exaggeration of, 349 English Monarch, the First, 293 Era and Epoch, 293 Error, Correction of, 206

Error, Halfpence, 184
Errors, National, 187
Errors in Print, 209
Errors, Religious, 211
Esquires, Who are? 267
Executions, Public, 264
Experiments, First, Fallacles of, 310
Eye, Motion of the, 16
Eye, one, Superior Vision with, 317
Eye, Perfection of the, 15
Eyes, different Perspectives of the, 316

Failure, common Cause of, 204 "Family Editions," 222 Farthings of Queen Anne, 181 Fendal System, the, 168 Fiddlers and Catgut, 235 Finger, the Wedding Ring, 251 Fingers, Seeing with the, 17 Fire extinguished by the Sun, 122 Fire, Poker across, 123 Fire, Raking out the, 121 "Fires," Distances of, 122 " Fires," Extinction of, 122 Fire-irons, Polished, 124 Fire-proof Feats, 128 Fish, Consumption of, 50 Fish, few found at Sea, 52 Fish, Out-of-season, 51 Fish, Poisonous, 51 Fish, Prejudices against cating, 50 Fishes, Affection of, 361 " Fitz," the prefix, 271 Flags on Castles, 175 Flattery, the Best, 212 Flower de-Luce, the, 292 Flowers, Odour of, 72 Food, Animal, for Children, 46 Food, Animal, the English fond of, 40 Food, Animal and Vegetable, 42 Food, Nourishment in, 41 Food, Properties of, 40 Forks, Antiquity of, 137 France, South of, 6 France, Travelling in, 225 Freemasons, Ancient and Modern; 300 French Fashions, 154 French Language, the, in Travelling, 224 French Gloves, 153 French Women, 226

Fruits, Porced, 66

Pruits, Ripening, 66

Fuel, Waste of, 118

" Pull to the brim," 129 Punerals, Right of Way at, 253 Purs. Price of, 149 Purs, various, 149 Fur. Warmth of, 150 Game of "Beggar my Neighbour,"200 Gaming Hells, 199 Gas, Heating by, 120 Gardens, Ornamental, 166 Gas-burners, Economy of, 113 Gas-lights, Smoke from, 114 Genius, what is it? 217 Gentleman, what makes one? 263 Geometrical Terms, Misapplication of, 323 German Silver, the, 133 Giants, Bellef in, 332 Gilding, Spurious, 133 Gin for Worms, 22 Gipsies, who are the? 230 Glass broken by Hot Water, 125 Glass painting, Ancient, 164 Gleaning, Right of, 256 Gloves, French, 153 Gluttony, English, 368 Goatsucker, The, 350 Gold Fish in a Glass, 128 Gold, Jewellers', 142 Gold, Standard, 141 Golden Pippin, the, 67 "Good for Man and Beast," 25 Goodwin Sands, the, 209 Gordian Worm, the, 302 Gorgons, Who were they? 345 Gourmandism and Epicurism, 40 Griffins, various, 340 Grocers' Currants, 84 Growing Pat, 4 Guillotine, tho, 266 Guines and Feather, Fall of, 311

Hair, Nature of, 8 Haleyon, or King-fisher, the, 301 Halfpence, Error, 164 "Hangman's Wages," 265 Hannibal, Death of, 273

Gunpowder, Invention of, 207

Guineas, Light, 184

Happiness, Secret of, 204 Hawthorn, or May-bush, the, 283 Health, Evidence of, 4 Heat, Intense, Security from, 127 Heat, Sensation of, 126 Hedgehog sucking Cows, 355 Heir-at-Law, to Disinherit, 259 Holidays, obsolete, 186 Holidays and Trade, 185 Hops and Coals, Nuisances, 67 Horses, Slow, 350 Horses, White-hoofed, 350 Houbraken's Heads, Authenticity of. 180 Houses, Interior Decoration of, 163 Human Body, Weight of the, 192 Humming-birds, Food of, 350 Hydrophobia, 27 Hyæna, Untameable, 349 Hypochondriaes, Ridicule of, 28 Hypochondriasis, Cause of, 23

Ignorance, Popular, 309
Imagination, Errors of the, 212
"Imperial Tokay," 102
Improvement of the World, 199
Improvements, unpopular, 199
Indian Ink, 140
Infants, Bensibility of, 10
Insects foreboding Death, 363
Insurance Offices, "Profits of," 150
Insurances, Cheap, 159
Inventions, New, Effects of, 157
Irish, Intelligence of the, 226
Iron, Expansion of, 126

Jane Shore, Death of, 307
Jews' Antipathy to Pork, 301
"Jews' Oranges," 186
Jews' Ear, 302
Jeweller's Gold, 142
Jews' Harp, the, 223
Jews, Persecution of the, 300
John the Baptist's Locuste, 297
John Dory, the, 342
Jonah's Whale and Gourd, 324
Jury, Surgeon and Butcher on, 250

King without his Crown, 167 Knives, Antiquity of, 136 Knowledge and Happiness, 209 Knowledge, Limit of, 206 Mansions, Old English, 160

Lantern-fly, the, 366	Manufactures, French an
Laws, Misconstruction of, 254	158
Laws Penal, Contradictory, 262	Marketing, Principles of,
Laws, Temporary, Unrepealed, 260	Marocco Leather, 151
Leaden Vessels, Poison from, 25	Marriage, Exemptions by
Leases for 999 Years, 259	Marriages, Fleet, 250
Leeks worn on St. David's Day, 294	Marriages, Gretna Green,
Left-handedness, Cause of, 12	Marriages, Royal, 251
Legal Errors, 259	" Marry," the phrase, 244
Lent, Observance of, 242	Meat, Loss of, in Cooking
Life Assurance, Objections to, 160	Meat, Putridity of, 55
Light from Stale Fish, 132	Meat, Roast and Boiled, 4
Light from Wax and Tallow, 112	Mechanics, Theory and P
"Lightness before Death,"34	310
Linen Bleached and Unbleached, 148	Medical Advisers, Profits
Lion, Courage of the, 348	Medicines, Powerful, Use
Literature, Elizabethan, 173	Medlars and Quinces, Scar
Living in Ancient Times, 171	Melancholy, Religious, 21
Living, Elizabethan, 172	Mermaid, the Pretended,
Livings, Presentation to, 255	Metals, Transmutation of
Logwood, Misuse of, 151	Mezzotinto Engraving, Di
London, Healthiness of, 5	326
London Porter, 91	Microscopic Illusions, 315
Longevity of Authors, 1	Miller's Toll, the, 256
Longevity of the Deer, 351	Mineral Tallow, 314
Longevity, Highland, 1	Minster, the, 297
Looking Back, 329	Miracles, Scriptural, 212
Lot's Wife, a " Pillar of Salt," 328	Monasteries, Benefits of,
Louis Quatorze, Style of, 164	Money, Ancient Value of
Lunatics and the Moon, 25	Moral Science, 210
	Moths in Clothes, 152
Machinery, Manufacturing by, 157,	Mulgrave Family, Origin
260	Muscles, eating, 54
Madeira, East and West India, 103	Muscovy Glass, 140
Madeira and Claret, Decanting, 104	Mushrooms, Edible, 71
Madeira and the Gout, 104	Music, Ear for, 222
Madeira, Qualities of, 103	Music, Practice of, 222
Madeira on the Voyage, 103	Music, Tyroleso, 223
Madeira and the Mediterranean,	Mutton, Banstead, 57
Climate of, 6	Mutton, Prejudice against
Madness, What is it? 26	
Madness, Religious, 27	Nankeen, 131
Magazine, the First, 240	Natural History, Mistake
Magna Charta, 261	Nautical Maps, Imperfect
Making and Manufacturing, 157	Navigation, False Estima
Malt, High-dried, 87	Near-sighted Persons, 16
" Man has one Rib less than a Wo-	" Nervous,", the term, 10
man," 345	Newspapers, Origin of, 24
Man, Stature of, 2	Newspaper, the first Engl
Man, Temperature of, 4	Nightingale, the, 359
Mansions, French, 161	Noah's Ark, Form of, 327

Lamps, Management of, 113

```
Manufactures, French and English,
  158
Marketing, Principles of, 156
Marocco Leather, 151
Marriage, Exemptions by, 247
Marriages, Fleet, 250
Marriages, Gretna Green, 250
Marriages, Royal, 251
" Marry," the phrase, 244
Meat, Loss of, in Cooking, 55
Meat, Putridity of, 55
Meat, Roast and Boiled, 46
Mechanics, Theory and Practice of,
Medical Advisers, Profits of, 16
Medicines, Powerful, Use of, 21
Medlars and Quinces, Scarcity of, 60
Melancholy, Religious, 211
Mermaid, the Pretended, 337
Metals, Transmutation of, 284
Mezzotinto Engraving, Discovery of,
Microscopic Illusions, 315
Miller's Toll, the, 256
Mineral Tallow, 314
Minster, the, 297
Miracles, Scriptural, 212
Monasteries, Benefits of, 170
Money, Ancient Value of, 177
Moral Science, 210
Moths in Clothes, 152
Mulgrave Family, Origin of the, 321
Muscles, eating, 54
Muscovy Glass, 140
Mushrooms, Edible, 71
Music, Ear for, 222
Music, Practice of, 222
Music, Tyroleso, 223
Mutton, Banstead, 57
Mutton, Prejudice against eating, 56
Nankeen, 151
Natural History, Mistakes in, 346
Nautical Maps, Imperfection of, 323
Navigation, False Estimates of, 322
Near-sighted Persons, 16
```

" Nervous,", the term, 10 Newspapers, Origin of, 240 Newspaper, the first English, 238

Norfolk Biffins, 68	Potato-flour, 70
Noyeau, Poisonous, 85	Potatoes in Bread, 61
	Potatoes as Food, 50
Oak and Yeast, the, 61	Potatoes, Mealy and Waxy, 60
Obstinacy and Firmness, 204	"Prince of Wales's Feathers, the,"
Old England, 204	303
Opal, " Beauty " of the, 142	Printing, Effects of, 207
Opus Majus, the, 289	Prohibited Trade, 185
Order of the Garter, Origin of, 200	Prophecies, Political, 197
Orrery, the, 221	Prussic Acid not rare, 24
Oryx and Unicorn, 335	Pulse, on the, 12
'Over-Refinement," 170	Pursuit, Want of one, 205
' Oysters, Green," 53	
	Quarantine, on, 23
Parsimony and Economy, 199	Queen Anne's Farthings, 181
Past and Present Times, 167	
Patagonians, Height of the, 319	Rain, Prognostications of, 316
Pearls, What are they? 147	Raking out the Pire, 121
Pedlar's Acre, 292	Raleigh, Sir Wal. his El Dorado, 29
Peerage, Antiquity of the, 268	Raven, the, 357
Pelican feeding her Young with her	Razor and Hot Water, 136
Blood, 358	Razor, to use one, 136
Penal Laws, Contradictory, 262	Reading after Meals, 194
Pepper, Black and White, 86	Reason and Revelation, 211
Perpetual Motion Seekers, 311	Rest, Hours of, 7
Perspective, Different, of the Eyes,	Rhinoceros's Horn, the, 274
317	Ithone, the, and the Lake of Ge-
Perspective, Illusion of, 318	neva, 280
Pewter-ware, Disuse of, 133	Rice, Nourishment in, 63
Philosophy, Popular, 203	Rice, Patna, 63
Phonix, Fable of the, 339	"Rillevo," the term, 327
Piano-forte out of Tune, 127	Roads, British and Roman, 232
Pigeons, keeping, 281	Roads on the Continent, 226
Pillory, the, 266	Roads, Turnpike, 234
Plants, Poisonous, 68	"Roast Beef of Old England," 174
Plants in Rooms and Towns, 72	Romulus and Remus, 297
Pleasure Tours, 227	Roofs, Chestnut and Oak, 161
Plurality of Worlds, 210	Ruby and Diamond, the, 143
Poison, Antidotes to, 272	ready and Diamond, the, 143
	Sabbath and Sunday 240
Poison in the Nails, 274	Sabbath and Sunday, 240
Poison, "Slow," 276	Sage, Varieties of, 70 Sailors and Soldiers, British, Loy-
Poisons of the Ancients, 273	
Poisoning by Arsenic and Lead, 26	alty of, 188
Poisoning by Copper, 24	"Sallet-oil," 174
Poker across the Fire, 123	Salt in Sen-water, 312
Poinatum, 140	Sapphire, Varieties of, 142
Popularity, Value of, 190	Saw-mills, Statutes against, 259
Population and Prosperity, 202	Scarlet Runners, 71
Porcelain and Pottery, British, 139	Science, Mythology of, 283
Porter, London, Bitters and Head-	"Scotch, the," 100
ing of, 91	Sea-coast, Salubrity of, 6
Fort wine, Medicinal Qualities of, 98	Seed-corn destroyed by Pigeons, 281

Selling a Wife, 249 Sensibility, Benefits of, 9 Sensibility of Infants, 10 Shakspeare's Play of Henry V., 295 Sheets warmer than Blankets, 130 Shell-fish, Cruelty to, 53 Sherries, Adulteration of, 99 Sherries, Dark and Pale, 99 Sherries, Manufacture of, 99 Slaves, Flogging in the West Indies, 227 Sleep of Aged Persons, 32 Sleep, Nature of, 29 Sleep, Prevention of, 29 Sleep, Sound, 30 Sleeping with the Eyes Open, 29 Sleep-walking, 31 Sloth, Economy of the, 352 Small-pox, Inoculation for, 18 Smuggling in Scotland, 110 Snow melted with Salt, 73 Snow-water, 64 Soda-water, Spurious, 64 Sound and Noise, 371 Soup from Bones, 48 Soup, Turtle, 49 Sovereign, Arrest of the, 259 "Soy from Black Beetles," 86 Spectacles, Choice of, 17, 248 Spermaceti, Waste of, 112 Spider, Bird-killing, 306 Spider, the Tarantula, 367 Spirit of Wine, Test of, 109 Spirits, Adulteration of, 111 Spirits, Consumption of, 109 Spirits, Pale, 111 Spirits, Warmth from, 44 Squirrel Cages, barbarous, 282 Star Chamber, the, 293 Statesmen, Clever, 203 Statues, Ancient, Exaggeration of, 2 Steam from the Kettle, 125 Stilton Cheese, 58 Storms, Danger from, 319 Stoves, Cast-iron and Bright, 124 Stove-grates, Low, 131 Stramonium in Asthma, 22 Strasburg Pies, 59 Studies, Abstract, 32 Studies, Night, 8 Style of Writing, 218 Subterranean World, the, 324

Sugar, Economy in, 75 Sugar and the Teeth, 75 Sugar, Nutriment in, 74 Suicides, English and French, 189 Suicides in November, 183 Sumptuary Laws, the, 169 Sun, Exposure to the, 5 Suppers Recommended, 48 Surgeon on a Jury, 259 "Swan with Two Necks," 360 Swallows, Disappearance of in Win ter, 357 Sweet and Bitter, Components of, 312 "Talented," the, 221 Talents, Precocious, 217 Tarantula Spider, the, 367 Tartarian Lamb, the, 351 Taste of the Public, 186 Tea, Antiquity of, 75 Tea consumed in England, 75 Tea, Effects of, 81 Tea in England, High Price of, 78 Tea, Green, 80 Tea, keeping, 79 Tea, Quality of, 77 Tea, Varieties of, 76 Teas, Adulteration of, 77 Teas, Fine, in China, 78 Tea-plant, Localities of the, 76 Tea-pots, Black, 125 Tears, What are they? 248 Teeth, Stopping the, Telescope, Invention of the, 238 Temperature of Aged Persons, 5 Temperature of Man, 4 Tender in Payment, 257 Tenterden Steeple and Goodwin Sands, 299 Thames Water, 65, 89 Thaw, a Cold one, 129! Theatres, Misconstruction of, 165 Thirst, Imaginary, 44 "Thirteen to Dinner." 195 "Thunderbolt, the," 318 Tide, Rise of at Old London Bridge, 319 Tin and Tin-plate, 132 Tinning Vessels, 132 Tongue, the, 8 Trance, Causes of, 31

" Transpire," 222

Transiting Programmen, 994
Transiting in Fernica, 999
Transiting in Fernica, 999
Trans the Finite, 498
Transa the finite, 498
Transa the finite, 498
Transa than 1990
Transa than 1991
Transa tha

Vanigien that, the, 411
Vaniehall mid ting Fewken, 969
Vagetalden, thiliting, 186
Varien tilanen, 279
Vanithalian, Fepatimilat, 121
Vanithalian, Fepatimilat, 123
Vanithalian at 11 thilitin, 116
Vina timbush by tiland, 44
Vinagard, the, 43

trainment, thin, 449

Weiteleiter, Ast est, 14 Wreeperberm breetteberme, 114 Wrest I words to Fredhard, Shi Writishers, Establish, 141 Truther fromt fibrith transfer 194 Meritan to forthe francis, 654 Writer, Him Brownes, 194 AN immerst & ness for transmit White Hermann, Butterrite, 411 by when whenever & extension out to ATTERIAL WAY the sac transfer a figure of the of true will tuffers, tompreparation think 14 115 Draffile tenderen neit nebne beterent, bitt WARREST OF the Human Hody, 143

।। ४४ मार्थक "समान । (देशसाम्य " भने जेसमान्यः) अर्थन WHILMA, HILMSH HE, MY IT WE HERE IN HAIR IT I NEW / CHARGE NA , 997 Wittenbury, MANHAMINA, 114 White hust hind which his Windows, Glusca, Ind WHE, HEHRAVIER, M WHEN, FINALLY HE, GAS WHILE, FIFTHERINA, WI WHEN HE HE POPPETTY OF المرة ، قدم منعد المتعدد في المدينة المدينة ، المراح ، المدينة المدينة المدينة المدينة المدينة المدينة المراح ، المدينة ال WY SHIN, BY A SHINS BUSINESS AND, SHIP by some by bear on so it is said Writing, \$51757 why, explosibly his, ship Water, Free wheel His WHERE, French, Committee from No, 1000 Withen, Home made, morbolesome, \$ 1705 WHER, FRATHE, 1M WHILE HARRIST BY by some, be beneficially, been WHENE, ENTITE THE OFF WHEN HEA RESTEED WI MY FAINE, '\$ HUGEN FAT, 645 Writing word teptition, Hometica of, 44 WHIN HARDER, FHITHKHEN, THE WHILE THERETHE, BEFFEREN, HEF Windows to Friedrich, Mit WHITHAR, MATHEMANN, H BONK , WHERE WHAT THE HISTORY MINES Wrattern tribe, the

Voltan a manument Colonia, 166

" WHEN FERRY THE, MY

Wat tilution, Wathing in, 24

Which will a Fight, 464

THE ENTH.

IMAHHHE ANH BYAHA, PRINTERS, WHITEPHIARS,

# PRESENT BOOKS FOR YOUTH.



# CAPTAIN MAYNE REID'S BOOKS OF ADVENTURE FOR BOYS.

. .

# The Bush Boys;

ditto

THE HISTORY AND AUVENTURES OF A CAPE
VARMER AND HIS FAMILY
IN THE WILL RANGE OF SHILLERS AFRICA.

the with Kanada de Shortesha Athres.

BY CAPTAIN MAYNE REID,

Author of "The they Hunters," "The Young Vegagenes," &c.

WITH TWELVE ILITICIHATIONS;

Hotes To, whith.

If he a will sed books for trays, command is above all may taking to England Mays Dold! Whenever his may book pose this new year there will be Sorrey doubt delight to books a desired, and the light of the bearing bigs. Frigaring and advantages, do goes, declines, and sufficiency as the restability the might speed actions. The minute of the control of the transpley books and to be control. Take the light freely and substantially the light with a part of the transpley. Take the speed for the tray to book a few to be a book books to be a book to be a book of the control of the control of the tray to be a book to be a book of the control of the co

11.

# The Forest Exiles;

11162

THE PERILS OF A PERILVIAN FAMILY AMID THE WILDS OF THE AMAZON,

HY BAPTALS MAYSK REID,

WITH TORING HITHATHATHRA.

Third Midition, Price To. oluth:

While it startling execute, increations incidents, and had beauth essays as the followed take about most beauth while the reads, and the sounder in exergines to the following the exercity and long mults the presence term in the sounder to exercit the following the exercity the following the exercity the following the presence when the sounder the energy of the following the extra following the exercity the following th



TOTTY DISPERSING THE CHACMAS.

THE BUSH BOYS, page 417.

# CAPTAIN MAYNE REID'S BOOKS OF ADVENTURE FOR BOYS.

111.

# The Boy Hunters:

on,

ADVENTURES IN SEARCH OF A WHITE BUFFALO.

WITH ILLUSTRATIONS BY HARVEY.

Fourth Edition, Price 7s. cloth.

"Just such a book as we would make a Christmas present of to a favourite vouthful friend." - Ohserver.

"A charming boy's book,"-Watchman.

IV.

# The Young Voyageurs:

on,

# THE BOY HUNTERS IN THE NORTH.

WITH ILLUSTRATIONS BY HARVEY.

Second Edition, Price 7s. cloth.

"A real boys' delight. Full of adventure and natural history.

Emphatically to be recommended."-Critic. "There can be little doubt that 'The Young Voyageurs' will command as

wide and lasting a popularity as its predecessors - those predecessors prized, we question not, by many a noble hearted boy as among his chief book-favouritesranged by him on the same dear old shelf with 'The Boy's Own Book' and 'Robinson Crusoe,'"-Sun.

# The Desert Home:

# ADVENTURES OF A FAMILY LOST IN THE WILDERNESS.

ILLUSTRATIONS BY HARVEY.

Fifth Edition, Price 7s. cloth.

"This is a volume in which young gentlemen between the ages of twelve and twenty will greatly rejoice . . . . An interesting story, expressly framed to introduce the youthful reader to an extensive acquaintance with natural history."- Oritie.

"The author is personally familiar with the scenes he describes, and is thus able to give them an air of truthfulness which, in other circumstances, can only be attained by the rarest genius."-Chambers's Journal.

DAVID BOOUE, FLEET STREET.



THE ADVENTURE OF BASIL AND THE BISON BULL.

YOUNG VOYAGEURS, page 123.

# MR. MAYHEW'S BOOKS OF SCIENCE FOR YOUTH.

1.

### The Wonders of Science:

OR,

#### YOUNG HUMPHRY DAVY,

The Cornish Apothecary's Boy, who taught himself Natural Philosophy, and eventually became President of the Royal Society.

THE LIFE OF A WONDERPUL BOY, WRITTEN FOR BOYS.

#### BY HENRY MAYHEW,

Author of "The Peasant-Boy Philosopher," &c.

ILLUSTRATIONS BY JOHN GILBERT. WITH

Second Edition, Price 6s. cloth.

" A better hero for a Boy's Book, Mr. Mayhew could not have found, and no writer would have treated the story more successfully than he has done. We had long been in want of a 'young people's Author;' and we seem to have the right man in the right place, in the person of Mr. Mayhew."—Athenaum.

"In many a young reader the wholesome spirit of inquiry will be stimulated by a book like this, which belongs to a class of its own, whereof its Author may claim to have been the establisher, as he is indeed at present the sole writer in it. Nothing in the sense intended by it it can be better. b—Examiner.

II.

#### THE STORY OF

# The Peasant-Boy Philosopher;

OR.

#### A CHILD GATHERING PEBBLES ON THE SEA-SHORE."

Founded on the early life of Ferguson, the Shepherd-Boy Astronomer, and intended to show how a Poor Lad became acquainted with the Principles of Natural Science.

#### BY HENRY MAYHEW.

#### WITH ILLUSTRATIONS BY JOHN GILBERT,

Second Edition, Price 6s. cloth.

"Its great charm is, that the thoughtful young will love it because it gracefully encourages thought; while the unthinking will find themselves speedily brought to love it, because it intelligibly opens to them the new sensation of thought. The book, in fact, is worth a wilderness of mere Christmas books."— Athena um.

"Told with the grace and feeling of Goldsmith, and by one who has that knowledge of selence which Goldsmith lacked. It is as if Brewster and poo-'Goldy,' had combined to produce this instructive and beautifully-old tale."-

Lira.



HUMPHRY'S EXPERIMENTS ON THE DIFFUSION OF HEAT.

WONDERS OF SCIENCE, page 137.

#### MR. J. G. EDGAR'S

#### WORKS ON BIOGRAPHY AND HISTORY.

1

In foolscap, 8vo, 3s. 6d. cloth,

# The Boyhood of Great Men.

INTENDED AS AN EXAMPLE FOR YOUTH.

BY JOHN G. EDGAR.

WITH ILLUSTRATIONS BY BIRKET POSTER.

Third Edition.

"It would have been a matter of regret to see such a book badly executed. That regret we are spared, for this little volume is simply and well done. The blographies are numerous and brief, but not too short to be amusing; and as thousands of boys thirst for greatness, which is acquired by ones and tens, there will be thousands glad to read a book like this."—Ecuminer.

11.

Same size and price.

### Footprints of Famous Men.

DESIGNED AS INCITEMENTS TO INTELLECTUAL INDUSTRY.

WITH ILLUSTRATIONS BY BIRKET FOSTER.

Second Edition.

"A very useful and agreeable volume. It is useful, as biography is always an important ally to history; and it is useful, because it gives another blow to the waning idea, that any eminence has ever been attained without severe labour."—Standard.

III.

In foolscap 8vo, price 5s., bandsomely bound,

#### History for Boys;

OR, ANNALS OF THE PRINCIPAL NATIONS OF MODERN EUROPE.

WITH BIGHT ILLUSTRATIONS BY GEORGE THOMAS.



WILKIE'S FIRST ATTEMPTS.

BOYHOOD OF GREAT MEN, page 290.

ŧ.

In two volumes, post 8vo, 12s. cloth.

# Household Stories.

All the most Popular Fairy Tales and Legends of Germany.

COLLECTED BY THE BROTHERS GRIMM.

PEWIT THANSLATED, AND ILLUSTRATED WITH TWO HUNDRED AND FURIT FRURAVISUS, BY SUWARD H. WEHRERT,

"Here is, indeed, a treasure for the nursery, a translation of the famous success of the Brothers Ground, whose tales have become as familiar in Germany as Little Red Riding Hond or Unibrella here. The stories are producely illustrated with outs, and any one who wishes to gain the affections of a little lady or gentures a count do better than become a purchaser and donor of Grimm's Household Stories.' Allas.

11.

In foolscap 8vo, price to. 6d. cloth,

# Mia and Charlie;

UH.

A WEER'S HOLIDAY AT RYDALE RECTORY.

WITH RIGHT LLLUSTRATIONS BY BIRRET FOSTER.

"the of the most attractive of all the Christmas stories, for juvenile readers, that have lately appeared. Indeed it is one of those children's stories in which enter large need not scorn to take an interest. The bold and spirited Charlie, who got into an many scrapes, and yet could not be laughed into doing what he thought wrong; and the gentle and sensitie Mia, whose influence did so much wood to all about her, are the most attractive characters in the tale, but there are no any athers, both rich and poor, who appear in it. There are few young readers who will not derive a large amount of profit and pleasure from this charming it'le story." Son.

111.

In foolscap 8vo, price 6s.

# Memorable Women; the Story of their Lives.

BY MRS. NEWTON CROSLAND.

Author of " Lydin, a Woman's Book."

WITH FIGHT ULIUSTRATIONS BY BIRKET FORTER

"Most pleasant and profitable reading."—Literary Gazette.

"time of those works about women which a woman only can write. We cannot imagine a more delightful, streegthening, and elevating exercise for a grainful temale, than the pertual of such a volume as this of 'Memorable Women,"

"Mornin Advertiser."

A NUTTING RAMBLE.

MIA AND CHARLIE, page 103,

#### BOOKS OF AMUSEMENT.

L.

#### The Boy's Own Book:

A complete Encyclopedia of all the Diversions—Athletic, Scientific, and Recreative— of Boyhood and Youth.

NEW AND GREATLY ENLARGED EDITION, WITH NUMEROUS ADDITIONAL ILLUSTRATIONS. Price 8s. 6d. cloth.

H.

### The Little Boy's Own Book:

A Selection from the Above.

Price Ss. 6d.

111.

### Round Games for All Parties.

A COLLECTION OF THE GREATEST VARIETY OF FAMILY AMUSEMENTS FOR THE FIRESIDE OR PIC-NIC.

Games of Memory, Games of Action, Catch Games, Games requiring the Exercise of Fancy, Intelligence, and Imagination, Directions for Crying Forfeits, &c.

WITE ILLUSTRATIONS. NEW EDITION, ENLARGED.

Price 5s. cloth, gilt.

IV.

### Acting Charades; or Deeds, not Words.

A CHRISTMAS GAME TO MAKE A LONG EVENING SHORT. BY THE BROTHERS MAYHEW.

NEW EDITION. PROFUSELY ILLUSTRATED,

Price 5s. cloth.

v.

### A Cracker Bon-bon for Christmas Parties;

OR, CHRISTMAS PIECES FOR PRIVATE REPRESENTATION, &c. BY R. B. BROUGH.

PROPUSELY ILLUSTRATED. PRICE 3s. 6d. DAVID BOGUE, FLEET STREET.

#### BOOKS FOR BOYS

ı.

#### The Life of Nelson.

BY ROBERT SOUTHEY.

With numerous Tinted Plates, and Woodcuts printed in the Text, from Designs by Birket Foster, Duncan, &c.

Post Svo. 6s.

11.

# Parlour Magic;

A Manual of Amusing Experiments, Transmutations, Sleights and Subtleties, Legerdemain, &c.

Including the Tricks of Houdin, Robin, &c., as recently exhibited in London and Paris.

Price 4s. 6d., cloth.

III.

### The Comic Latin Grammar;

A FACETIOUS INTRODUCTION TO THE LATIN TONGUE.

WITH NUMEROUS ILLUSTRATIONS ON STEEL AND WOOD, BY 4. LEITCH.

Price 54.

IV.

#### The Playmate:

A PLEASANT COMPANION FOR SPARE HOURS.

Consisting of Historical Tales, Natural History, Amusements, &c.

Price for

v.

# The Pictorial Bible History.

CONTAINING

TWO HUNDRED AND EIGHTY-EIGHT PICTURES OF THE PRINCIPAL SCENES IN THE SACRED SCRIPTURE NARRATIVE, WITH DESCRIPTIONS.

Price 3s. 6d. cloth.

I.

# The Young Islanders; a Tale for Boys.

BY JEFFERYS TAYLOR.

NEW EDITION, WITH TINTED PLATES, 6s.

II.

#### The Boat and the Caravan:

A FAMILY TOUR IN EGYPT AND SYRIA.

WITH PLATES, FIFTH EDITION, 7s.

HI.

#### Harry's Ladder to Learning;

With Two Hundred and Thirty Engravings.—For very Young Children.

3s. 6d. plain-6s. coloured.

IV.

### Harry's Book of Poetry;

SHORT POEMS FOR THE NURSERY.

BY ELIZA GROVE,

With numerous Illustrations by Birket Foster, Harrison Weir, K. Haswell, &c.

3s. 6d. plain-6s. coloured.

٧.

#### Robinson Crusoe.

I.—An Edition in Large Type, with Illustrations by Stothard. Cloth, 7s. 6d.

II. - In fep. 8vo, with Illustrations by George Cruikshank and others. Price 3s. 6d.

### Comic Story Books.

Price 1s. each with Coloured Plates.

ALDERMAN GORBLE. THE QUARRELSOME NEIGHBOURS. THE WONDERFUL HARE HUNT. REYNARD THE FOX.

THE WEASELS OF HOLMWOOD. LADY CHAPPINCH'S BALL.

### Comical Creatures from Wurtemberg;

PROM

THE STUFFED ANIMALS IN THE GREAT EXHIBITION. Square cloth, 3s. 6d .- coloured, 6s.

#### Comical People

MET WITH AT THE GREAT EXHIBITION.

PROM DRAWINGS BY J. J. GRANDVILLE. Small quarto, 3s. 6d .- coloured 6s.

### Picture Book for Young People.

Fifty quarto Plates, with Descriptions, cloth, 5s.; coloured, 10s. 6d.

# George Cruikshank's Fairy Library.

Edited and Illustrated by George Chuikshank. 1. Hop o' MY THUMB. 2. JACK AND THE BEAN-STALK. 3. CINDEBELLA.

Price 1s. each.

# History of England,

FOR YOUNG PERSONS. By ANNE LYDIA BOND. Eighty Illustrations, 3s. 6d.

# Original Poems for my Children.

By THOMAS MILLER. Profusely Illustrated, 2s. 6d., cloth.

I.

# The Young Islanders; a Tale for Boys.

BY JEFFERYS TAYLOR.

NEW EDITION, WITH TINTED PLATES, 60.

11.

#### The Boat and the Caravan:

A FAMILY TOUR IN EGYPT AND SYRIA.

WITH PLATES, FIFTH EDITION, 78.

111.

### Harry's Ladder to Learning;

With Two Hundred and Thirty Engravings.—For very Young Children.

3s. 6d. plain-Gs. coloured.

IV.

### Harry's Book of Poetry;

SHORT POEMS FOR THE NURSERY.

BY ELIZA GROVE.

With numerous Illustrations by Birket Foster, Harrison Weir, K. Haswell, &c.

3s. 6d. plain-6s. coloured.

٧.

#### Robinson Crusoe.

I.—An Edition in Large Type, with Illustrations by Stothard. Cloth, 7s. 6d.

II. - In fep. 8vo, with Illustrations by George Cruikshank and others.
 Price 3s. 6d.

### Comic Story Books.

Price 1s, each with Coloured Plates.

ALDERMAN GOBBLE.
THE QUARRELSOME NEIGHBOURS.
THE WONDERFUL HARE HUNT.

THE WEASELS OF HOLMWOOD. LADY CHAPPINCH'S BALL. REYNARD THE FOX.

# Comical Creatures from Wurtemberg;

PROM

THE STUFFED ANIMALS IN THE GREAT EXHIBITION.

Square cloth, 3s. 6d.—coloured, 6s.

### Comical People

MET WITH AT THE GREAT EXHIBITION.

FROM DRAWINGS BY J. J. GRANDVILLE.

Small quarto, 3s. 6d.—coloured 6s.

### Picture Book for Young People.

Fifty quarto Plates, with Descriptions, cloth, 5s.; coloured, 10s. 6d.

# George Cruikshank's Fairy Library.

Edited and Illustrated by George Cruikshank.

1. Hop o' my Thumb.

2. Jack and the Bean-Stalk.

3. Cinderella.

Price 1s. each.

# History of England,

FOR YOUNG PERSONS.

By ANNE LYDIA BOND. Eighty Illustrations, 3s. 6d.

# Original Poems for my Children.

By THOMAS MILLER. Profusely Illustrated, 2s. 6d., cloth.

DAVID BOGUE, FLEET STREET.

Digital by Google

#### CHILDREN'S BOOKS.

### Little Mary's Books for Children.

Price 6d, each, profusely Illustrated.

LITTLE MARY'S PRIMER, SPELLING BOOK, READING BOOK, HISTORY OF ENGLAND, SCRIPTURE LESSONS, PIRST BOOK OF POETRY, SECOND BOOK OF POETRY, BABES IN THE WOOD. PICTURE RIDDLES. LITTLE MARY AND HER DOLL.

### Little Mary's Treasury;

Being Eight of the above bound in One Volume, cloth, 5s.

### Little Mary's Lesson Book;

Containing "PRIMER," "SPELLING," and "READING," in One Volume, Cloth, gilt, 2s. 6d.

#### Bertie's Indestructible Books.

Printed on Calico, 6d, each.

- 1. Honn Book. 2. Word Book.
- S. FARM YARD.

- 4. WOODSTDE, 5. WILD BEASTS.
- 6. Binn Book,
- 7. NURSERY DITTIES.

#### Little Harry's Picture Books.

HARRY'S	Hous Book.	HARRY'S	NUMBERY TALES,
**	Parine Book.	**	SIMPLE STORIES,
**	COUNTRY WALKS,	**	NURSERY TALES,

Price 6d, each, plain; 1s. coloured,

#### Home Lesson Books.

THE	HOME	Ригмен,	nearly 200	ents, clott	,	,	,	1	0
THE	HOME	Bunk or	NATURAL.	History,	ente,	cloth	,	1	0
			n, cuta, clot		,	,	,	1	0

Each may be had with Coloured Plates, 20, 6d,

### Home Story Books.

THE WELL-BEEN DOLL, cuts, cloth	,	,	,	,	1	0
THE DISCONTENTED CHICKENS, cloth	,	,	,	,	1	()
HISTORY OF LITTLE JANEADD HER NEW	1410	KY Be	OK, c	oth	1	0
LIGHT FOR THE NURSERY, by the Author						
One Syllable," cloth	,	,	,	,	1	0
Or with Coloured Distor	9.	BA				

LONDON: DAVID BOGUE, FLEET STREET, AND BOLD BY ALL BOOKSELLERS IN TOWN AND COUNTRY.

# DAVID BOGUE'S

(LATE TILT AND BOGUE)



# NEW ILLUSTRATED WORKS.

Goldsmith's Traveller. Illustrated with Thirty Exquisite Engravings on Steel, Designed and Etched by BIRKET FOSTER. 8vo, elegantly bound in cloth, gilt, 21s.; morocco, 31s. 6d.

"A gem among the gift-books."—Leader. "The gift-book of the season."—Athen.

Milton's L'Allegro and Il Penseroso. Illustrated with Thirty Etchings on Steel by Birket Foster. Super-royal 8vo, neatly bound, 21s.; morocco, 31s. 6d.

The Rhine: Its Picturesque Scenery and Historical Associations. Illustrated by Birket Foster, and Described by Henry Maynew. Twenty Line Engravings, executed in the Highest Style of Art, from Mr. Birket Foster's drawings. Imp. 8vo, 21s. cloth; 31s. 6d. morocco.

"Full of beauty and character."- Examiner.

Christmas with the Poets: A Collection of English Poetry relating to the Festival of Christmas. Upwards of Fifty Engravings from Drawings by BIRKET FOSTER, and numerous Initial Letters and Borders printed in gold. New Edition, with additional Embellishments, super-royal 8vo, richly bound, 25s.; morocco, 35s.

ILLIATRATED WORKS Continued. ]

- Rhymes and Roundelayes in Praise of a Country
  Life, by Poets of Many Lands. Adorned on almost every page
  with Pictures by Anspell, Absolon, Duncan, Dodoson, Foster,
  Goodall, Hulme, F. Tayler, and Weir. Second Edition, square
  8vo, bound in the ancient fashion and richly ornamented, 21s.;
  morocco, 31s. 6d.
- Longfellow's Poetical Works, Illustrated. New and Enlarged Edition. Including "Evangeline," "Voices of the Night," "Seaside and Fireside," "The Golden Legend," and other Poems. With One Hundred and Seventy Engravings on Wood, from Designs by BIRKET FOSTER, JANE E. HAY, and JOHN GILBERT. Crown 8vo, 21s. cloth; 30s. merceece.
- This is the only Illustrated Edition containing "The Golden Legend."
  - "Evangeline," separately, 10s. 6d. cloth; 16s. morocco.
  - "Voices of the Night," "Senside," &c., 15s. cloth; 21s. morocco.
- Longfellow's Hyperion, Illustrated. With nearly One Hundred Engravings of the Scenery of the Romance, from Original Drawings of the actual localities, by Berker Foster. Crown 8vo, 21s. cloth; 30s. morocco.
- Longfellow's Golden Legend, Illustrated. A New and Revised Edition, with numerous Alterations and Notes by the Author. Illustrated by Birker Foster. Crown 8vo, 12s. cloth; 21s. morocco.
  - \* \* For other Editions of Longfellow's Works see pages 12 and 13.
- The Illustrated Byron. Beautifully printed in imperial 8vo, and enriched with numerous Illustrations by Birker Foster, Kenny Meadows, Gustave Janet, &c. Elegantly bound, 12s.
- Bunyan's Pilgrim's Progress. Profusely Illustrated by William Harvey; with Memoir by the Rev. George Chiever, D.D. Third Edition, crown 8vo, 12s. cloth; 18s. morocco; large paper, 42s. cloth; 60s. morocco.
- The Christian Graces in Olden Time: A Series of Female Portraits, beautifully engraved by the best Artists, with Poetical Illustrations by Henry Sterming, D.D. Imperial 8vo, 21s. righly bound and gilt; 42s. coloured.

ILLUSTRATED WORKS-Continued.]

- Turner and his Works: A Biography, illustrated by Examples from his Pictures, and a Critical Examination of his Principles and Practice. By John Burner, F.R.S. The Memoir by Peter Conningham. With Plates. Demy 4to, 21s. 6d.; Autograph Proofs (only 25 printed), folio, £5 5s.
- Rembrandt and his Works; with a Critical Examination into his Principles and Practice. By J. Burner, F.R.S. Fifteen Plates, 4to, 31s. 6d.; Artist's Autograph Proofs, imperial 4to, £6 5s. (only 50 printed).
- The Heroines of Shakspeare: Forty-five Portraits of his principal Female Characters. Engraved under the superintendence of Mr. Character Hearn, from Drawings by the best Artists. Imperial 8vo, handsomely bound in morocco, 42s.; Coloured Plates, £3 13s. 64.; proofs, imperial folio, half-morocco, £3 13s. 6d.; India proofs, £5 5s.
- The Landscape Painters of England: Sketches after English Landscape Painters. Twenty Etchings of their most characteristic works, by Louis Marvy, with short Notices by W. M. Thackeray. Boyal 4to, 31s. 6d.; coloured, 52s. 6d.
- Poetry of the Year: Passages from the Poets, Descriptive of the Seasons. With Twenty-two Coloured Illustrations, from Drawings by Birket Poster, T. Creswick, E. Duncan, William Lee, C. H. Weigall, H. Weig, David Cox, and other eminent Artists. Imperial 8vo, cloth, 18s.; large paper, 30s.
- Humphreys' British Coins. The Coinage of the British Empire; Illustrated by Fac-similes of the Coins of each Period, in Gold, Silver, and Copper. By H. N. Humphreys. Super-royal 8vo, 21s. cloth; 25s. antique.
- The Book of Beauty. The Court Album, or Book of Beauty. A Series of charming Portraits of the young Female Nobility, with Historical and Biographical Memoirs. 4to, richly gilt, 21s.; coloured, 42s.
- Heath's Keepsake. The Keepsake. Edited by Miss M. A. Power (LADY BLESSINGTON'S niece), assisted by the most popular writers of the day. Royal 8vo, 21s.; India proofs, 52s. 6d.

ILLUSTRATED WORKS-Continued.

- Rhymes and Roundelayes in Praise of a Country Life, by Poets of Many Lands. Adorned on almost every page with Pictures by Ansbell, Absolon, Duncan, Dodgson, Foster, Goodall, Hulme, F. Tayler, and Weir. Second Edition, square 8vo, bound in the ancient fashion and richly ornamented, 21s.; morocco, 31s. 6d.
- Longfellow's Poetical Works, Illustrated. New and Enlarged Edition. Including "Evangeline," "Voices of the Night," "Seaside and Fireside," "The Golden Legend," and other Poems. With One Hundred and Seventy Engravings on Wood, from Designs by BRICKET FOSTER, JANE E. HAY, and JOHN GILBRET. Crown 8vo, 21s. cloth; 30s. morocco.
- This is the only Illustrated Edition containing "The Golden Legend."
  - "Evangeline," separately, 10s. 6d. cloth; 16s. morocco.
  - "Voices of the Night," "Seaside," &c., 15s. cloth; 21s. morocco.
- Longfellow's Hyperion, Illustrated. With nearly One Hundred Engravings of the Scenery of the Romance, from Original Drawings of the actual localities, by BIRKET FOSTER. Crown 8vo, 21s. cloth; 30s. morocco.
- Longfellow's Golden Legend, Illustrated. A New and Revised Edition, with numerous Alterations and Notes by the Author. Illustrated by BIRKET FOSTER. Crown 8vo, 12s. cloth; 21s. morocco.
  - \* For other Editions of Longfellow's Works see pages 12 and 13.
- The Illustrated Byron. Beautifully printed in imperial 8vo, and enriched with numerous Illustrations by Binker Foster, Kenny Meadows, Gustave Janet, &c. Elegantly bound, 12s.
- Bunyan's Pilgrim's Progress. Profusely Illustrated by William Harvey; with Memoir by the Rev. George Cheever, D.D. Third Edition, crown 8vo, 12s. cloth; 18s. morocco; large paper, 42s. cloth; 60s. morocco.
- The Christian Graces in Olden Time: A Series of Female Portraits, beautifully engraved by the best Artists, with Poetical Illustrations by Henry Sterismo, D.D. Imperial 8vo, 21s. richly bound and gilt; 42s. coloured.

ILLUSTRATED WORKS-Continued.

- Turner and his Works: A Biography, illustrated by Examples from his Pictures, and a Critical Examination of his Principles and Practice. By John Burnet, F.R.S. The Memoir by Peter Cunningham. With Plates. Demy 4to, 31s. 6d.; Autograph Proofs (only 25 printed), folio, £5 5s.
- Rembrandt and his Works; with a Critical Examination into his Principles and Practice. By J. Burnet, F.R.S. Fifteen Plates, 4to, 31s. 6d.; Artist's Autograph Proofs, imperial 4to, £5 5s. (only 50 printed).
- The Heroines of Shakspeare: Forty-five Portraits of his principal Female Characters. Engraved under the superintendence of Mr. Charles Heath, from Drawings by the best Artists. Imperial Svo, handsomely bound in morocco, 42s.; Coloured Plates, £3 13s. 6d.; proofs, imperial folio, half-morocco, £3 13s. 6d.; India proofs, £5 5s.
- The Landscape Painters of England: Sketches after English Landscape Painters. Twenty Etchings of their most characteristic works, by Louis Marvy, with short Notices by W. M. Thackeray. Royal 4to, 31s. 6d.; coloured, 52s. 6d.
- Poetry of the Year: Passages from the Poets, Descriptive of the Seasons. With Twenty-two Coloured Illustrations, from Drawings by Birket Foster, T. Creswick, E. Duncan, William Lee, C. H. Weigall, H. Weir, David Cox, and other eminent Artists. Imperial 8vo, cloth, 18s.; large paper, 30s.
- Humphreys' British Coins. The Coinage of the British Empire; Illustrated by Fac-similes of the Coins of each Period, in Gold, Silver, and Copper. By H. N. Humphreys. Super-royal 8vo, 21s. cloth; 25s. antique.
- The Book of Beauty. The Court Album, or Book of Beauty. A Series of charming Portraits of the young Female Nobility, with Historical and Biographical Memoirs. 4to, richly gilt, 21s.; coloured, 42s.
- Heath's Keepsake. The Keepsake. Edited by Miss M. A. Power (Lady Blessington's niece), assisted by the most popular writers of the day. Royal 8vo, 21s.; India proofs, 52s. 6d.

ILLUSTRATED WORKS-Continued. ]

- The Gallery of Byron Beauties: Portraits of the Heroines of Lord Byron's Poems, from Drawings by the most eminent Artists. Super-royal Svo, morocco, 31s. 6d.; highly coloured, £3.
- Heath's Waverley Gallery. Portraits of the principal Female Characters in the Writings of Score. Thirty-six highlyfinished Plates. Super-royal 8vo, splendidly bound in morocco, 31s. 6d. ; with coloured Plates, £3.
- Gallery of the Graces; or, Beauties of British Poets. Thirty-six beautiful Female Heads by LANDSEER, BOXALL, F. Stone, &c., illustrating Tennyson, Campbell, Rogers, Landon, &c. Super-royal Svo, 31s. 6d. morocco; with coloured Plates, £3.
- Curiosities of Glass-making: A History of the Art, Ancient and Modern. By Arsley Pellarr, Esq. With Six beautifully coloured Plates of Antique Vases, &c. Small 4to, cloth, 12s.
- The Cartoons of Raffaelle, from Hampton Court Palace. Engraved by John Benner. With Descriptive Letterpress and Uritical Romarks, Seven large Plates (24 inches by 34), wrapper, 31s, 6d.; or coloured, 63s.
- Vestiges of Old London: A Series of finished Etchings from Original Drawings, with Descriptions, Historical Associations, and other References. By J. WYKEHAM ARCHER. Imperial 4to, India proofs, 50s.
- Views in Rome; Comprising all its principal edifices, and its surrounding Scenery. Engraved by W. B. Cooks. Thirtyeight Plates, with a Panoramio View of the City. 4to, 21s.; India proofs, £2 2s.
- The Bible Gallery: Eighteen Portraits of the Women mentioned in Scripture, beautifully Engraved from Original Drawings, with Letterpress Descriptions. Imperial 8vo, handsomely bound, 21s.; with Plates beautifully coloured, 42s.
- The Women of the Bible. Eighteen Portraits (forming a Second Series of THE BIBLE GALLERY). Handsomely bound, 21s.; coloured, 42s.

ILLUSTRATED WORKS-Continued.

- Milton's Poetical Works. Paradise Lost and Regained, Comus, Samson Agonistes, L'Allegro, &c.; with Essay on Milton's Life and Writings, by James Montgomery. Illustrated with One Hundred and Twenty Engravings, by Thompson, Williams, Orrin Smith, &c., from Drawings by William Harvey. Two volumes, crown 8vo, 24s. cloth; 34s. morocco.
- Cowper's Poems. With Life and Critical Remarks, by the Rev. Thomas Dale; and Seventy-five fine Engravings by J. Orrin Smith, from Drawings by John Gilbert. Two vols. crown 8vo, 24s. cloth; 34s. morocco.

"The handsomest of the editions of Cowper."-Spectator.

- Thomson's Seasons and Castle of Indolence. With Life and Critical Remarks by Allan Cunningham; and Fortyeight Illustrations by Samuel Williams. 12s. cloth; 17s. morocco.
- Beattie and Collins' Poetical Works. With an Essay on their Lives and Writings; and Illustrations, engraved by S. Williams, &c., from Drawings by John Absolon. Crown Svo, cloth, 12s.; morocco, 17s.
- The Language of Flowers; or, The Pilgrimage of Love. By Thomas Miller. With Eight beautifully coloured Plates. Second Edition, small Svo, cloth, 6s.; morocco, 7s. 6d.
- The Romance of Nature; or, The Flower Seasons Illustrated. By L. A. TWAMLEY. With Twenty-seven coloured Plates, Third Edition, 31s. 6d. morocco.
- Pearls of the East: Beauties from "Lalla Rookh."

  Twelve large-sized Portraits, by Fanny Corbaux. Imperial 4to,
  31s. 6d. tinted; plates highly-coloured, 52s. 6d.
- Pictures of Country Life; or, Summer Rambles in Green and Shady Places. By Thos. MILLER, Author of "Beauties of the Country." With Illustrations by SAMUEL WILLIAMS. Crown Svo, cloth, 6s.

ILLUSTRATED WORKS-Continued, ]

### Sir Walter Scott's most Popular Works-

Till's Illustrated Editions.

- 1. THE LAY OF THE LAST MINSTREL.
- 2. THE LADY OF THE LAKE.
- 3. MARMION; A TALE OF FLODDEN FIELD.
- 4. ROKEBY.
- These elegant volumes are uniformly printed in fcp. 8vo, and Illustrated with numerous Engravings on Steel. Price 7s. cloth; 10s. 6d. morocco elegant.
- Harding's Sketches at Home and Abroad. Sixty Views of the most interesting Scenes, Foreign and Domestic, printed in tints, in exact imitation of the Original Drawings. Imperial folio, half-morocco, £6 6s.
- "A treasure-house of delight. Here northern Italy yields up its architectural glories and its lake scenery -Venice its palaces—the Tyroi its romantic valleys and villages—the Ithenish cities their picturesque beauty—and France and England their greenest spots of remembrance."—Athenoum.
- The Beauty of the Heavens. One Hundred and Four Coloured Plates, representing the principal Astronomical Phenomena; and an Elementary Lecture, expressly adapted for Family Instruction and Entertainment. By Charles F. Blust. New Edition, 4to, cloth, 28s.
- Le Keux's Memorials of Cambridge. Views of the Colleges, Halls, Churches, and other Public Buildings of the University and Town, engraved by J. L. Keux; with Historical and Descriptive Accounts, by Thomas Whight, B.A., and the Rev. H. L. Jones. Two volumes demy 8vo, cloth, 24s.; 4to, proofs, 42s.
- Walton and Cotton's Complete Angler. Edited by John Majon, with Illustrations by Admonton. New Edition, fep. 8vo, cloth, 12s.; morocco, 18s.; large paper, boards, 24s.; morocco, 31s. 6d.

Distress by Google

Digitized by Gossell

#### PRACTICAL WORKS ON

# DRAWING AND PAINTING.

#### JOHN BURNET, F.R.S.

- Landscape Painting in Oil Colours Explained, in Letters on the Theory and Practice of the Art. Illustrated by Fourteen Plates of Examples from the several Schools. By John Burnet, F.R.S., Author of "Practical Hints on Painting." 4to, 21s. cloth.
- Practical Hints on Portrait Painting. Illustrated by Examples from the Works of the best Masters. By John Burnet. Demy 4to, 21s.
- Practical Essays on the Fine Arts; with a Critical Examination into the Principles and Practice of the late Sir David Wilkie. By John Burner. Post 8vo, 6s.

#### J. D. HARDING.

- Lessons on Art. By J. D. Harding, Author of "Elementary Art; or, the Use of the Chalk and Lead-pencil Advocated and Explained," &c. Second Edition, imp. 8vo, cloth, 15s.
- The Guide and Companion to "Lessons on Art."
  By J. D. Harding. Imp. 8vo, cloth, 12s. 6d.
- Lessons on Trees. By J. D. Harding. Folio, cloth, 15s.
- Elementary Art. By J. D. HARDING. Imp. 4to, 25s. cloth.
- The Elements of Art: A Manual for the Amateur, and Basis of Study for the Professional Artist. By J. G. CHAPMAN. Many Woodcuts. 4to, 10s. 6d.
- The Art of Painting Restored to its Simplest and Surest Principles. By L. Hundertpfund. Twenty-four coloured Plates. Post 8vo, 9s. 6d.
  - Manuals of Art, see page 21.—Drawing Books, page 29.

### ARCHITECTURAL WORKS.

#### RAPHAEL AND J. ARTHUR BRANDON.

- An Analysis of Gothick Architecture. Illustrated by a Series of upwards of Seven Hundred Examples of Doorways, Windows, &c.; accompanied with Remarks on the several Details of an Ecclesiastical Edifice. By R. and J. A. Brandon, Architects. Two large volumes, royal 4to, £5 5s.
- The Open Timber Roofs of the Middle Ages. Illustrated by Perspective and Working Drawings of some of the best varieties of Church Roofs; with Descriptive Letterpress. By R. and J. A. Brandon. Royal 4to, uniform with the above, £3 3s.
- Parish Churches; being Perspective Views of English Ecclesiastical Structures; accompanied by Plans drawn to a Uniform Scale, and Letterpress Descriptions. By R. and J. A. Brandon, Architects. Two volumes large 8vo, containing 100 Plates, £2 2s.
- Winkles's English Cathedrals. Architectural and Picturesque Illustrations of the Cathedral Churches of England and Wales. New Edition, with the Manchester Cathedral. 186 Plates, beautifully engraved by B. Winkles; with Historical and Descriptive Accounts of the various Cathedrals. In three bandsome volumes, imperial 8vo, cloth, £2 8s.
- \* The Third Volume, comprising Lichfield, Gloucester, Hereford, Worcester, Durham, Carlisle, Chester, Ripon, Manchester, and the Welsh Cathedrals, may still be had separately, to complete sets, price 24s. in 8vo, 48s. in 4to.
- Glossary of Architecture. Explanation of the Terms used in Greeian, Roman, Italian, and Gothic Architecture, exemplified by many Hundred Woodcuts. Fifth Edition, much enlarged. Three volumes 8vo, 48s.
- Introduction to Gothic Architecture. By the Editor of the "Glossary;" with numerous Illustrations, 4s. 6d. cloth.

ARCHITECTURAL WORKS-Continued.]

- Principles of Gothic Ecclesiastical Architecture. By M. H. BLOXAM. With an Explanation of Technical Terms. 260 Woodcuts, 6s. cloth. New Edition (In the Press).
- Stuart's Antiquities of Athens, and other Monuments of Greece. With Seventy Plates, accurately reduced from the great work of Stuart and Revett; and a Chronological Table, forming a valuable Introduction to the Study of Greeian Architecture. 10s. 6d.
- Domestic Architecture. Illustrations of the Ancient Domestic Architecture of England, from the XIth to the XVIIth Century. Arranged by John Barton, F.S.A. With an Historical and Descriptive Essay. Fep. 8vo, 5s. cloth.

# BIOGRAPHY.

- The Life of William Etty, R.A. With Extracts from his Diaries and Correspondence. By ALEXANDER GILCURIST, of the Middle Temple, Barrister-at-Law. Two volumes, post 8vo, 21s. cloth.
- Life and Times of Madame de Stael. By Miss Maria Norms. Post 8vo, 9s. cloth.
- Turner and his Works: A Biography, illustrated by Examples from his Pictures and a Critical Examination of his Principles and Practice. By John Burner, F.R.S. The Memoir by Peter Cunningham. With Plates. Demy 4to, 31s. 6d.; Autograph proofs (only 25 printed), folio, £5 5s.
- Rembrandt and his Works; with a Critical Examination into his Principles and Practice. By John Burner, F.R.S. Fifteen Plates, 4to, 31s. 6d.; Artist's Autograph Proofs, imperial 4to, £5 5s. (only 50 printed).

Brookaphy-Continued. ]

- Men of the Time: or, Biographical Sketches of Eminent Living Characters—Authors, Architects, Artists, Composers, Capitalists, Dramatists, Divines, Discoverers, Engineers, Journalists, Men of Science, Ministers, Monarchs, Novelists, Painters, Philanthropists, Poets, Politicians, Savans, Sculptors, Statesmen, Travellers, Voyagers, Warriors. With Biographies of Celebrated Women. Greatly Enlarged Edition. With Several Hundred additional Memoirs, small 8vo, 944 pp., 12s. 6d. cloth.
- Southey's Life of Nelson. Illustrated by Duncan, Binker Foster, and others. Crown Svo, 6s.
- Memorable Women; the Story of their Lives. By Mrs. Newton Crosland. Illustrated by B. Foster. Fep. Svo, 6s.
- "One of those works about women which a woman only can write. We cannot imagine a more delightful, strengthening, and elevating exercise for a youthful female, than the perusal of such a volume as this of 'Memorable Women."—Morning Advertiser.
- The Boyhood of Great Men as an Example to Youth.

  By John G. Edgar. With Cuts by B. Foster. Fourth Edition,
  3s. 6d. cloth; 4s. gilt edges.
- "It would have been a matter of regret to see such a book badly executed. That regret we are spared, for this little volume is simply and well done. The biographies are numerous and brief, but not too short to be amusing; and as thousands of boys thirst for greatness, which is acquired by ones and tens, there will be thousands glad to read a book like this."—Examiner.
- Footprints of Famous Men; or, Biography for Boys. By J. G. Edgar. Cuts by Foster. Second Edition, 3s. 6d. cloth; 4s. gilt edges.
- "A very useful and agreeable volume. It is useful, as biography is always an important ally to history; and it is useful, because it gives another blow to the waning idea, that any eminence has ever been attained without severe labour."—Standard.
- Boy Princes; or, Scions of Royalty Cut off in Youth.

  By John G. Edgar. With Illustrations by George Thomas. Fep.
  Svo, 5s. cloth.

# BOOKS OF TRAVEL, &c.

- A Ramble through Normandy; or, Scenes, Characters, and Incidents in a Sketching Excursion through Calvados. By George M. Musgrave, M.A. Post Svo, with numerous Illustrations, 10s. 6d. cloth.
- Constantinople of To-day: A Visit to the Turkish Capital: with Descriptions of the City and its Inhabitants. By Theophile Gautter. With Fac-similes of Photographic Drawings. Crown 8vo, 7s. 6d.
- Albert Smith's Story of Mont Blanc, and the various Ascents thereof, from the time of Saussure to the present day. With Illustrations. New Edition, fcp. 8vo, 5s. cloth.
- A Month in Constantinople. By Albert Smith. With numerous Illustrations on Steel and Wood. Third Edition, fep. 8vo, 5s. cloth.
- Prince Adalbert. Travels of H.R.H. Prince Adalbert, of Prussia, in the South of Europe and in Brazil; with a Voyage up the Amazon and the Xingú. Translated by Sir R. H. Schomburgk and J. E. Taylor. Two volumes 8vo, Maps and Plates, 16s.
- Travels in Peru, during the years 1838-42, across the Cordilleras and the Andes into the Primeval Forests. By Dr. J. J. Von Tschudl. Translated by Miss Ross. 8vo, 12s.
- The Boat and the Caravan: A Family Tour in Egypt and Syria. With Engravings on Steel from Original Drawings. Fourth Edition. Fep. 8vo, cloth, 7s.; morocco, 10s. 6d.
- Tour on the Prairies. Narrative of an Expedition across the Great South-Western Prairies, from Texas to Santa Fé. By Gronge W. Kendall. Two volumes, fep. 8vo, with Map and Plates, 6s.
- The Wonders of Travel; containing Choice Extracts from the best Books of Travel. Fep. 8vo, Plates, 3s. 6d.

#### POETRY.

- Longfellow's Poetical Works. New and Complete Edition, including "The Song of Hiawatha." With a fine Portrait, and other Engravings. Fep., 6s. cloth; 10s. 6d. morocco.
- The Song of Hiawatha. By H. W. Longrellow. New Edition, with the Author's latest Corrections. Fep., 5s. eloth. Cheap Protective Edition. 1s. sewed.
- The Golden Legend. By H. W. Longerttow. 2nd Edition. Fep., 5s. cloth. Cheap Edition. 1s. 6d. cloth; 1s. sewed.
- Poems. By ALEXANDER SMITH. Fifth Edition. Fep. 8vo. cloth, 5s.
- Sonnets on the War. By ALEXANDER SMITH, and by THE AUTHOR OF "BALDER." IS. SOWED.
- Griselda, and other Poems. By Edwin Arnold. Fep., 6s. cloth.
- The Ballad of Babe Christabel, and other Lyrical Poems. By Gerald Massey. Fifth Edition, 5s. cloth.
- Craigcrook Castle: A Poem. By Gerald Massey. Second Edition, Revised, fep., 5s. cloth.
- Rev. Thomas Dale's Poetical Works. Including "The Widow of Nain," "The Daughter of Jairus," &c. New and Enlarged Edition, fep. 8vo, 7s. cloth.
- Poems. By Edward Capers, Rural Postman of Bideford, Devon. Second Edition, with Additions, fep., 5s. cloth.
- Egeria; or, The Spirit of Nature. By CHARLES MACKAY, LL.D. Fep. 8vo, 5s. cloth.
- Town Lyrics. By Charles Mackay. Crown 8vo, sewed, 1s.

### FICTION AND AMUSEMENT.

- Longfellow's Prose Works. "Hyperion," "Kavanagh," and "Outre-Mer." Fep. 8vo. Uniform with Longfellow's Poetical Works. With numerous Engravings. 6s. cloth; 10s. 6d. morocco.
- Wearyfoot Common: A Tale. By LEITCH RITCHIE. With Six Illustrations. Fcp. 8vo, 5s. cloth.
- "A production of a high order, eminently healthy in its tone and tendency, and fitted to stimulate and foster a spirit of manly independence."—Commonwealth.

  "A work of real genius."—Illustrated London News.
- Christian Melville. By the Author of "Matthew Paxton." Fep. 8vo, with Frontispiece, 5s. cloth.
- The Greatest Plague of Life; or, the Adventures of a Lady in Search of a Servant, by One who has been almost Worried to Death. Edited by the Brothers Mayhew. Illustrated by George Cruikshank. Crown 8vo, 7s. cloth.
- Acting Charades; or, Deeds not Words. A Christmas Game to make a long evening short. By the Brothers Maynew. Illustrated with many hundred Woodcuts. 5s. cloth.
- Round Games for all Parties. A Collection of the greatest Variety of Family Amusements for the Fireside or Picnic—Games of Action—Games of Memory—Catch Games—Games requiring the Exercise of Fancy, Intelligence, and Imagination—Directions for Crying Forfeits, &c. Second Edition. 5s. cloth gilt.
- A Cracker Bon-Bon for Christmas Parties: A Collection of Humorous Dramas, Poems, and Sketches. By R. B. Brough. Profusely Illustrated by Hine. Cloth, 3s. 6d.
- Shadows. Twenty-five Amusing Engravings. By C. H. Bennett. Small 4to. Ornamental Wrapper, 2s. 6d.; coloured, 4s. 6d.

"Where's Shadow ! Here, Sir. Shadow ! "-Shakspeare.

"The notion that has seized Mr. Bennett's fancy is an odd one, and he has worked it out with great humour. A comic figure makes a shadow really more comic than itself, and it excites an amount of agreeable curiosity and gratification on seeing the one figure, to imagine how the artist will contrive to make it reflect another."—Morning Chronicle.

FICTION AND AMUSEMENT-Continued. ]

- Grimm's Household Stories. All the most Popular Fairy Tales and Legends of Germany, collected by the Brothers Grimm. Newly Translated, and Illustrated with Two Hundred and Forty Engravings, by Edward H. Wehnert. Complete in One Volume, erown 8vo, 7s. 6d. cloth.
- The Anniversary: A Christmas Story. With Illustrations by Thomas Onwhyn. Fcp., 2s. 6d. cloth.
- The Dream of Eugene Aram. By Thomas Hood, Author of the "Song of the Shirt." With Illustrations by Harvey. Crown 8vo, 1s. sewed.
- The Magic of Industry; or, The Good Genius that Turned Everything to Gold: a Fairy Tale. By the Brothers MAYHEW. With Plates by GEORGE CRUIKSHANK. 2s. 6d. cloth.
- The Sandboys' Adventures; or, London in 1851, during the Great Exhibition. By HENRY MAYHEW and GEORGE CRUIK-8HANK. 8vo, cloth, 8s. 6d.
- Christopher Tadpole: his Struggles and Adventures. By ALBERT SMITH. With Forty-two Illustrations on Steel, by JOHN LEECH, and a Portrait of the Author. 8s.
- Gavarni in London. Scenes and Sketches of London Life and Manners. By Mons. GAVARNI. Beautifully engraved and tinted. Imp. 8vo, handsomely bound, 6s.
- Adventures of Robinson Crusoe, complete. Reprinted from the Original Edition, with Illustrations by Stothard. Crown 8vo, cloth, 7s. 6d.
- Robinson Crusoe, with numerous Woodcuts by George Cruikshank and others. Fep. 8vo, 3s. 6d. cloth.
- The Young Lady's Oracle; or, Fortune-telling Book. A Fireside Amusement, with Plate, 1s. cloth.
- The Game of Whist: Its Theory and Practice. By an AMATEUR. With Illustrations by Kenny Meadows. New Edition, fep. 8vo, 3s. cloth.

#### SCIENTIFIC WORKS.

- Lectures on the Great Exhibition, and its Results on the Arts and Manufactures. Delivered before the Society of Arts, by some of the most EMINENT MEN of the day. In Two Series, price 7s. 6d. each, neatly bound in cloth.
- Lectures on Gold, delivered at the Government School of Mines for the Use of Emigrants to Australia. Crown 8vo, with illustrations, 2s. 6d.
- Year-Book of Facts in Science and Art; exhibiting the most important Discoveries and Improvements of the Year, and a Literary and Scientific Obituary. By John Timbs, F.S.A., Editor of "The Arcana of Science." Fep. 8vo, 5s. cloth.
- \*\* This work is published annually, and contains a complete and condensed view of the progress of discovery during the year, systematically arranged, with Engravings illustrative of novelties in the Arts and Sciences, &c. The volumes, from its commencement in 1839, may still be had, 5s. each.
- "This book does for us what we have not done for ourselves—it stores up every useful bit of information to be found in the records of learned societies or announced through scientific and news journals."—Globe.
  - "Ably and honestly compiled."-Athenœum.
- The Literary and Scientific Register and Almanack for 1857; with an ample Collection of Useful Statistical and Miscellaneous Tables. Dedicated, by special permission, to Prince Albert. By J. W. G. GUTCH, M.R.C.S.L., F.L.S., Foreign Service Queen's Messenger. Price 3s. 6d. roan tuck.
- "As perfect a compendium of useful knowledge in connection with Literature, Science, and the Arts, as it is necessary everybody should have acquaintance with. It is, in short, a little volume which will save the trouble of hunting through many books of more pretension, and supply off-hand what, without it, would require much time and trouble."—Times.
- The Beauty of the Heavens. One Hundred and Four Coloured Plates, representing the principal Astronomical Phenomena; and an Elementary Lecture, expressly adapted for Family Instruction and Entertainment. By CHARLES F. BLUNT. New Edition, 4to, cloth, 28s.

#### DICTIONARIES.

- Webster's Quarto Dictionary, unabridged; containing all the Words in the English Language, with their Etymologies and Derivations. By NOAH WEBSTER, LL.D. Revised by Professor Goodhich. With Pronouncing Vocabularies of Scripture, Classical, and Geographical Names. New Edition, carefully printed in a large 4to volume, 31s. 6d. cloth; 42s. calf.
- \* . \* The only complete work. All the octavo editions are Abridgments.
- "All young persons should have a standard Dictionary at their clbow; and while you are about it, get the best: that dictionary is Noah Webster's, the great work unabridged. If you are too poor, save the amount from off your back, to put it into your head."
- "We can have no hesitation in giving it as our opinion, that this is the most claborate and successful undertaking of the kind which has ever appeared."—
  Times.
- "The veteran Webster's work is the best and most useful Dictionary of the English Language ever published. Every page attests the learning and talent, the sound judgment and nice discrimination, the great industry, profound research, and surprising perseverance of the author. It is a very manifest improvement on Todd's Johnson, and contains many thousand more words than that or any other English Dictionary hitherto published."—Examiner.
- Webster's Octavo Dictionary. Abridged from the above. Cloth, 7s. 6d.
- Webster's Smaller Dictionary. Condensed by Charles Rouson, crown 8vo, 5s. embossed.
- Webster's Pocket Dictionary. 32mo, 3s. 6d.
- Miniature French Dictionary, in French and English, English and French: comprising all the words in general use. The remarkably comprehensive nature and compact size of this little Dictionary admirably fit it for the student and tourist. Neatly bound in roan, 4s.; morocco, gilt edges, δs. 6d.
- Sharpe's Diamond Dictionary of the English Language. A very small volume, beautifully printed in a clear and legible type. Roan, neat, 2s. 6d.; morocco, 3s. 6d.

#### COMIC WORKS.

#### CEORGE CRUIKSHANK'S WORKS.

My Sketch-book; containing more than Two Hundred laughable Sketches. By George Cruikshank. In Nine Numbers, 2s. 6d. each, plain; 3s. 6d. coloured.

Scraps and Sketches. In Four Parts, each 5s. plain; 12s. coloured.

Illustrations of Time. 8s. plain; 12s. coloured.

Illustrations of Phrenology.
8s. plain; 12s. coloured.

The Bottle. In Eight Large Plates, 1s.; or printed in tints, 6s.

The Drunkard's Children. A Sequel to the Bottle. Eight large Plates, 1s.; printed in tints, 6s.

\*.\* These two works may be had sitched up with Dr. Charles Mackay's illustrative Poem, price 3s. The Poem separate, 1s.

The Comic Alphabet. Twentysix Humorous Designs. In case, 2s. 6d. plain; 4s. coloured.

The Loving Ballad of Lord Bateman. With Twelve Humorous Plates. Cloth, 2s.

The Bachelor's Own Book: Being Twenty-four Passages in the Life of Mr. Lambkin in the Pursuit of Pleasure and Amusement. 5s. sewed; coloured, 8s. 6d.

John Gilpin; Cowper's Humorous Poem. With Six Illustrations by George Chuikshank. Fep. 8vo, 1s.

The Comic Almanack, from its commencement in 1835 to 1853. Illustrated with numerous large Plates by George Cruikshank, and many hundred amusing Cuts.

• • Any of the separate Years (except that for 1835) may be had at 1s. 3d. each.

The Epping Hunt. The Poetry by Thomas Hood, the Illustrations by George Cauteshank. New Edition, fep. 8vo, 1s. 6d.

The Toothache; imagined by Horace Maynew, and realised by George Cruckstank: A Series of Sketches. In case, 1s. 6d. plain; 3s. coloured.

Mr. Bachelor Butterfly: His Veritable History; showing how, after being Married, he narrowly escaped Bigamy, and became the Stepfather of Eight Hopeful Children. By the Author of "Mr. Oldbuck." 5s. cloth.

Comic Adventures of Obadiah

Oldbuck: wherein are duly set forth the Crosses, Chagrins, Changes, and Calamities by which his Courtship was attended; showing, also, the Issue of his Suit, and his Espousal to his Ladye-love. Large 8vo, with Eighty-four Plates, 7s. cloth.

The History of Mr. Ogleby; Showing how, by the Polish of his Manners, the Brilliancy of his Itepartees, and the Elegance of his Attitudes, he attained Distinction in the Pashionable World. 150 Designs, 6s. cloth. 1 was Worker - I untinued. ]

Bhadows. Twenty five Annusing Engravings. By C. H. Banacti Small 4to. Ornamental Wrapper, 2s. 6d.; coloured, 4s. 6d., "Whate's Shadow! Here, Sir. Shadow!"-Shadopears.

"The notion that has served Mr. Hennett's fancy is an odd one, and he has worked it out with great humon. A comic lights makes a shadow really more connection itself, and it exists an animal of agreeable correctly and greatheathon on eaching the one figure, by invaging how the artist will contribe to make it reflect another." Mining Chemicle.

The Comic Latin Grammar: A New and Facetions introduction to the Latin Tongue. Profusely Illustrated with Humanus Engravings by Lessen. New Edition, 5s. cloth.

" Without exception the most stelly comic work we have ever seen " - Tail's Mag. .

New Readings from Old Authors, Illustrations of !
Shakepere, by Robert Sevence. 4s. cloth.

Tale of a Tiger, With Siz Illustrations, By J. S. Corros. Pop. Syo, 14.

#### MISCELLANEOUS WORKS,

#### MR. JOHN TIMBS'S WORKS.

Things Not Generally Known Familiarly explained.
A Book for Old and Young. New edition, fep. 840, sloth, St. 64.

Curiosities of History; with New Lights. A New Voiume of "Things Not Generally Enough" Fep. 890, cloth, 3s., 6d.

Popular Errors Explained and Illustrated. New and Themper Edition, Sep. Sci. 6d. cloth.

Orginisties of London; embracing the most remerkable Objects of Interest in the Metropolis, Past and Present. Small 8vo (pp. 800), with Portrait, 14s. cloth.

[86, Pierr Sturms,

MISCELLANEOUS WORKS-Continued.

- The Happy Home. By the Author of "Life in Earnest." New Edition, cloth, 1s. 6d.
- French Domestic Cookery, combining Elegance with Economy; in 1200 Receipts. With numerous Engravings. Fcp. 8vo, 4s. cloth.
- Floral Fancies; or, Morals from Flowers. With Seventy Illustrations. Fep. 8vo, 7s. cloth.
- Williams's Symbolical Euclid, chiefly from the Text of Dr. Simson. Adapted to the use of Students, by the Rev. J. M. Williams, of Queen's College, Cambridge. New Edition, 6s. 6d. cloth; 7s. roan. An 8vo Edition may also be had, 7s. cloth.
  - . This edition is in use at many of the Public Schools.
- King's Interest Tables, on Sums from One to Ten Thousand Pounds. Enlarged and improved, with several useful Additions. By Joseph King, of Liverpool. In one large vol. 8vo, 21s.
- Seven Hundred Domestic Hints, combining Elegance and Economy with the Enjoyment of Home. By a Laby. Neatly bound in cloth, 2s. 6d.
- The Fountain of Living Waters. 2s. cloth gilt.
- The Glory of Christ Illustrated in his Character and History, and in the Last Things of his Mediatorial Government. By Gardiner Spring, D.D. Fep. 7s. cloth.
- The Book of the Months, and Circle of the Seasons. Embelished with Twenty-eight Engravings from Drawings by WILLIAM HARVEY. Beautifully printed in fcp. 8vo, 2s. 6d. cioth.
- Sketches of Canadian Life, Lay and Ecclesiastical, Illustrative of Canada and the Canadian Church. By a Preserver of the Diocese of Toronto. Post 8vo, 6s.
- Life's Lessons: A Domestic Tale. By the Author of "Tales that Might be True." New Edition, with Frontispicce, fep. 8vo, 4s. cloth.

COMIL. WORKS-Continued.

Shadows. Twenty-five Amusing Engravings. By C. H. Bennett. Small 4to. Ornamental Wrapper, 2s. 6d.; coloured, 4s. 6d. " Where's Shadow! Here, Sir. Shadow!" .- Shakspeare,

"The notion that has seized Mr. Bennett's funcy is an odd one, and he has worked it out with great humour. A comic figure makes a shadow really more comic than itself, and it excites an amount of agreeable curiosity and gratification on seeing the one figure, to imagine how the artist will contrive to make it reflect snother." Marning Chronicle.

The Comic Latin Grammar: A New and Facetious Introduction to the Latin Tongue, Profusely Illustrated with Humorous Engravings by Lesch. New Edition, 6s. cloth.

"Without exception the most richly comic work we have ever seen." - Toit's Mag.

New Readings from Old Authors. Illustrations of Shakapere, by Robert Sermoun. 4s. cloth.

Tale of a Tiger. With Six Illustrations, By J. S. Corros. Pop. Syo, 18.

#### MISCELLANEOUS WORKS.

#### MR. JOHN TIMBS'S WORKS.

- Things Not Generally Known Familiarly explained. A Book for Old and Young, New edition, fep, 8vo, cloth, 3s. 6d.
- Curiosities of History; with New Lights. A New Volume of "Things Not Generally Known." Fep. 8vo, cloth, 3s, 6d.
- Popular Errors Explained and Illustrated. New and Chenper Edition, fep. Sm. 6d. cloth.
- Curiosities of London; embracing the most remarkable Objects of Interest in the Metropolis, Past and Present. Small 8vo (pp. 800), with Portrait, 14s. cloth.

[86, PLEET STREET,

MISCELLANEOUS WORKS-Continued.

- The Happy Home. By the Author of "Life in Earnest." New Edition, cloth, 1s. 6d.
- French Domestic Cookery, combining Elegance with Economy; in 1200 Receipts. With numerous Engravings. Fcp. 8vo, 4s. cloth.
- Floral Fancies; or, Morals from Flowers. With Seventy Illustrations. Fep. 8vo, 7s. cloth.
- Williams's Symbolical Euclid, chiefly from the Text of Dr. Simson. Adapted to the use of Students, by the Rev. J. M. WILLIAMS, of Queen's College, Cambridge. New Edition, 6s. 6d. cloth; 7s. roan. An 8vo Edition may also be had, 7s. cloth.
  - This edition is in use at many of the Public Schools.
- King's Interest Tables, on Sums from One to Ten Thousand Pounds. Enlarged and improved, with several useful Additions. By JOSEPH KING, of Liverpool. In one large vol. 8vo, 21s.
- Seven Hundred Domestic Hints, combining Elegance and Economy with the Enjoyment of Home. By a LADY. Neatly bound in cloth, 2s. 6d.
- The Fountain of Living Waters. 2s. cloth gilt.
- The Glory of Christ Illustrated in his Character and History, and in the Last Things of his Mediatorial Government. By Gardiner Spring, D.D. Fep. 7s. cloth.
- The Book of the Months, and Circle of the Seasons. Embellished with Twenty-eight Engravings from Drawings by WILLIAM HARVEY. Beautifully printed in fep. 8vo, 3s. 6d. cloth.
- Sketches of Canadian Life, Lay and Ecclesiastical, Illustrative of Canada and the Canadian Church. By a PRESBYTER of the DIOCESE of TORONTO. Post Svo, 6s.
- Life's Lessons: A Domestic Tale. By the Author of "Tales that Might be True." New Edition, with Frontispiece, fcp. 8vo, 4s. cloth.

MISCELLANEOUS WORKS-Continued.]

- Satire and Satirists. Six Lectures. By James Hannay. Post 8vo, 7s. 6d. cloth.
- Sharpe's Road-Book for the Rail, upon a scale of ten miles to an inch. With notices of Towns, Villages, Principal Seats, Historical Localities, Tunnels, Viaduets, and other objects of interest on the route. In two Divisions, price 1s. each; the two in one Volume, cloth, 2s. 6d.
- The London Anecdotes for all Readers, on the Plan of the Perey Anecdotes, Two volumes, 4s. cloth.
- Panoramic View of Palestine, or the Holy Land, before the Destruction of Jerusalem, depicting the sites of the various localities mentioned in Scripture. With References. In a folding cloth case. Plain, 2s. 6d.; coloured, 3s. 6d. On sheet, plain, 1s. 6d.; coloured, 2s. 6d.

### TILT'S CABINET LIBRARY EDITIONS.

- 1. Dr. Johnson's Lives of the English Poets.
- 2. Boswell's Life of Johnson.
- 3. Oliver Goldsmith's Works.
- 4. Hervey's Meditations and Contemplations.
- \*.\* These Works are clearly and beautifully printed by Whittingham; each comprised in a handsome fop. Svo volume. Their elegance and cheapness render them very suitable for Presents, School Prizes, or Travelling Companions. Price 6s. each, neatly half-bound in morocco; or, 9s. calf extra.

"That's Epition" must be specified in ordering the above.

### USEFUL WORKS.

One Shilling Each, neatly bound.

Etiquette for the Ladies.
Forty-first Edition.

Etiquette for Gentlemen.
Thirty-fifth Edition.

Etiquette of Courtship and Matrimony, with a complete Guide to the Forms of a Wedding.

Language of Flowers, with illuminated Covers, and coloured Frontispiece.

Handbook of Pencil Drawing (Plates).

A Shilling's Worth of Sense. The Weather Book: 300 Rules for Telling the Weather.

The Ball Room Preceptor and Polka Guide.

Ball Room Polka, with Music and Figures.

MISCRLLANEOUS WORKS-Continued.]

### BOOKS WITH ILLUMINATED TITLES.

IN THE STYLE OF THE OLD ROMISH MISSALS.

### Books of Poetry.

The Lyre: Fugitive Poetry of The the Nineteenth Century.

The Laurel: A Companion Volume to the Lyre.

The Poetry of Flowers.

Poetry of the Sentiments.

. \* 3s. 6d. each, neatly bound.

### Elegant Miniature Evitions.

Vicar of Wakefield.

Cottagers of Glenburnie.

Sacred Harp.

Cowper's Poems, 2 vols.

Thomson's Seasons.

Scott's Lady of the Lake.

Scott's Marmion.

Scott's Lay and Ballads.

Scott's Rokeby.

Scott's Select Poetical Works.
4 vols. containing the above Poems uniformly bound.

.. Each volume, very neatly bound and gilt, 2s. 6d. cloth; 4s. moroeco.

### MANUALS OF INSTRUCTION AND AMUSEMENT.

One Shilling each, neatly Printed and Illustrated.

- 1. Manual of Flower Gardening for Ladies. By J. B. WHITING, Practical Gardener. Second Edition.
- 2. Manual of Chess. By Charles Kenny.
- 3. Manual of Music. By C. W. MANBY.
- 4. Manual of Domestic Economy. By John Times.

- 5. Manual of Cage Birds. By a Practical Bird keeper.
- 6. Manual of Oil Painting; with a Glossary of Terms of Art.
- 7. Manual for Butterfly Collectors. By Abel Ingren. Plates.
- 8. Manual of Painting in Water Colours.

The Pocket Peerage and Baronetage of Great Britain and Ireland. By HENRY R. FORSTER, of the "Morning Post." Corrected to January, 1855. Neatly bound, 6s.

## JUVENILE WORKS.

### CAPTAIN REID'S BOOKS OF ADVENTURE FOR BOYS.

- The Young Yägers; a Narrative of Hunting Adventures in Southern Africa. By Cartain Mayne Reid, Author of "The Boy Hunters," "The Young Voyageurs," &c. With Twelve Illustrations by William Hauvey. Fep., 7s. cloth.
- The Bush Boys; or, the History and Adventures of a Cape Farmer and his Family in the Wild Karoos of Southern Africa. Second Edition, with Twelve Illustrations. Fep. 7s. cloth.
- The Desert Home; or, English Family Robinson. With numerous Illustrations by W. Hanyey. Fifth Edition, cloth, 7s.; with coloured plates, 10s. 6d.
- The Boy Hunters; or, Adventures in Search of a White Buffalo. With numerous Plates by Hanvey. Fifth Edition, cloth. 7s.; coloured, 10s. 6d.
- The Young Voyageurs; or, Adventures in the Fur Countries of the Far North. Plates by HARVEY. Second Edition, cloth, 7s.; with coloured plates, 10s. 6d.
- The Forest Exiles; or, Perils of a Peruvian Family amid the Wilds of the Amazon. With Twelve Plates. Third Edition, 7s. cloth; with coloured plates, 10s. 6d.

"As a writer of books for boys, commend us above all men living to Captain Mayne Reid! Wherever his new book goes this new year, there will be abundant delight for hours of reading, and plenty to talk of by the evening fire. Tolks and adventures, dangers, darlings and sufferings are married in the most vivid manner thoroughly fascinating the mind of the reader, and retaining it in fixed and engor attention till a crisis of some kind is reached. Take our word for it, boy friends, if you become Captain Mayne Reid's 'boy readers' on our recommendation, you will thank us for it with all your hearts, and praise the book more enthusias.

iteally than we have done,"-Nonconformist,

JUVENILE WORKS-Continued.

### MR. H. MAYHEW'S BOOKS OF SCIENCE FOR BOYS.

The Wonders of Science; or, Young Humphry Davy (the Cornish Apothecary's Boy, who taught himself Natural Philosophy, and eventually became President of the Royal Society). The Life of a Wonderful Boy, written for Boys. By Henry Maxhew, Author of "The Peasant-Boy Philosopher, &c. With Illustrations by John Gilbert. Second Edition. Fep., 6s. cloth.

"A better hero for a boy's book Mr. Mayhew could not have found, and no writer would have treated the story more successfully than he has done. We have long been in want of a 'young people's author,' and we seem to have the right man in the right place in the person of Mr. Mayhew."—Athenæum.

The Story of the Peasant-Boy Philosopher; or, "A Child gathering Pebbles on the Sea-shore." Founded on the Life of Ferguson the Shepherd-boy Astronomer, and showing how a Poor Lad made himself acquainted with the Principles of Natural Science. By Henry Mayhew, Author of "London Labour and the London Poor." With Eight Illustrations by John Gilbert, and numerous Drawings printed in the text. Third Edition, 6s. cloth.

"Told with the grace and feeling of Goldsmith, and by one who has that know-ledge of science which Goldsmith lacked. It is as if Brewster and poor 'Goldy' had combined to produce this instructive and beautifully told tale,"—Era.

### MR. J. G. EDGAR'S BOOKS FOR BOYS.

- The Boyhood of Great Men as an Example to Youth. By J. G. Eddar. With Cuts by B. Foster. Fourth Edition, 3s. 6d. cloth; with gilt edges, 4s.
- Footprints of Famous Men; or, Biography for Boys. By J. G. Edgar. Cuts by Foster. Second Edition, 3s. 6d. cloth; 4s. gilt edges.
- Boy Princes. By John G. Edgar. With Illustrations by George Thomas. Fep. 8vo, 5s. cloth.
- History for Boys; or, Annals of the Nations of Modern Europe. By J. G. Edgar. Fcp. 8vo, with Illustrations by George Thomas, 5s. cloth gilt.

Sevente Womes-Continued.]

- The Boy's Own Book: A complete Encyclopædia of all the Diversions—Athletic, Scientific, and Recreative—of Boyhood and Youth. With several hundred Woodcuts. New Edition, greatly enlarged and improved. Handsomely bound, 8s. 6d.
- The Little Boy's Own Book, an Abridgment of "The Boy's own Book" for Little Boys. 3s. 6d. neatly bound.
- Grimm's Household Stories. All the most Popular Fury Tales and Legends of Germany, collected by the Brothers Grimm. Newly Translated, and Illustrated with Two Hundred and Forty Engravings by EDWARD H. WEHNERT. Complete in One Younge, crown 8vo. 7s. 6d. cloth.
- Mia and Charlie; or, a Week's Holiday at Rydale Rectory. With Eaght Engravings by B. Foster. Fep., 4s. 6d. cloth.
- Sidney Grey: A Tale of School Life. By the Author of "Miss and Charlie." With Engravings, fep., 6s. cloth.
- The Heroes of Asgard and the Giants of Jotunheim; sw. Curistanas Week with the Old Storytellers. By the Author of "Min and Charle." With Illustrations by C. Doyle. Fep. aboth, 48
- Southey's Life of Nelson. Finely-illustrated Edition, with Lagranges from Drawings by Dencan, B. Poster, and where partly printed in the text, and part in tints on separate pages. Small Sty. 6s. neatly bound.
- Memorable Women; the Story of their Lives. By Mrs. NEWZON CHOSLAND. Illustrated by B. Foster. Fep. 8vo, 6s.
- The Boat and the Caravan: A Family Tour in Egypt and Syran. With Engravings on Steel from Original Drawings. Functh Edition. Fep. 8vo, cloth, 7s.; morocco, 10s. 6d.
- Emma de Lissau; or, Memoirs of a Converted Jewess.
  With Illustrations by Gulbert. New Edition, 7s. cloth; 10s. 6d.

JUVENILE WORKS-Continued.

- Miriam and Rosette; or, The Twin Sisters; A Jewish Narrative of the Eighteenth Century. By the Author of "Emma de Lissau." Illustrated by Gilbert. 3s. 6d. cloth.
- May You Like It: A Series of Tales and Sketches. By the Rev. Charles B. Tayler, Author of "Records of a Good Man's Life." Fep. 8vo, 7s. 6d. cloth; 10s. 6d. morocco.
- The Whaleman's Adventures in the Southern Ocean.

  By the Rev. Henry T. Cherver. Edited by the Rev. W. Scoresny, D.D. Fep. 8vo, 3s. 6d.
- Parlour Magic. New Edition, revised and enlarged, with the addition of several Tricks from the Performances of Messrs. Houdin, Robin, &c. 4s. 6d. cloth.
- Funny Books for Boys and Girls. Beautifully Printed in Colours, small 4to, price 1s. each, sewed:—
- 1. STRUWELPETER.
- 3. TROUBLESOME CHILDREN.
- 2. Good-for-Nothing Boys and 4. King Nuteracker and Poor Girls.

The Four Books bound in One Volume, cloth gilt, 5s.

- The Young Student. By Madame Guizor. With Engravings. Fep., 3s. 6d. cloth.
- The Story of Reynard the Fox. A New Version by Daniel Vedder. Illustrated with Fifteen large Plates by Gustave Canton, of Munich and Dusseldorf. Post 4to, 6s. boards; 17s. 6d. morocco.
- Adventures of Robinson Crusoe, complete. Reprinted from the Original Edition, with Illustrations by Stothard. Crown 8vo, cloth, 7s. 6d.
- Robinson Crusoe, with numerous Woodcuts by George Cruikshank and others. Fop. 8vo, 3s. 6d. cloth.

JUVENILE WORKS-Continued, )

The Young Islanders; a Tale of the Seaward-House Boys, By JEP, TAYLOR. Tinted plates, ds. cloth.

History of England, for Young BY ANNE LYDIA BOND. Persons. Eighty Illustrations, 3s. 6d.

Barbauld's Lessons for Children. Coloured plates, 1s.

Bingley's Stories about Dogs (Platen), 3s.

Bingley's Stories about Instinet (l'lates), ils,

Bingley's Tales of Shipwreck (l'inten), 3a.

about Bingley's Stories Hotnes (Platen), da,

Bingley's Tales about Birds l'Intra). An.

Bingley's Tales about Travelters (Plates), 3s.

Bingley's Bible Quadrupeds ( l'Inton), Am,

Boy's Treasury of Sports and Pastimes (300 Engravings by B. Williams), top, 8vo, cloth, da,

Child's First Lesson Book (many t'uta), aquare cloth, 3s. tid. ; milaurel, fin,

Family Poetry, by the Editor of " macred Harp," silk, 2s. fid.

The Pentamerone; or, Story of Montes, an admirable Collection of Patty Tales. By Chan, Hanten, Translated from the Neapolitan by J. E. Tarron, With Illustrations by trainer Curinanana, New Edition, tiorized, errorn dvo, tis, cloth,

Original Poems for My Children. By Phon is Mir tan. Profusely illustrated, Da, Od, olath,

Life of Christ, New Edition (28 Platen), da,

Hervey's Reflections in a Flower Garden (12 Coloured Plates).

History of My Pets, by Grace Greenwood (Coloured Plates). 2s, 6d.

Mother's Present to her Daughter, silk, 2s. 6d.

Parley's Visit to London, (Coloured Plates) cloth, 4s.

Pictorial Bible History, complete in One Volume, cloth, 3s. 6d.

Rural Amusements for School-boys during the Holidays (Cuta), cloth, 3s. 6d.

Sedgwick's Stories for Young l'ersons (l'lates), cloth, lis, 6d.

George Cruikshank's Fairy Library, Edited and Illustrated by GEORGE CHUIRSHANE.

2, JACK AND THE BEAR-STALK, 18, 3. CINDERELLA; OR, THE GLASS BLIF-PHH, 18,

The Comical Creatures from Wortemburg; from the Stuffed Animals in the Great Exhibition, Square,

cloth, As, 6d.; coloured, 6s,

Comical People met with at the Great Exhibition, from Drawings by J. J. GRANDVILLE, Small 410, 3s. 6d.; coloured, 6s,

Comical Story Books, with Coloured Plates. 1s. each.

1. THE WEARRES OF HOLMWOOD, 2. THE WONDERFUL HARE HUNT,

B. STORY OF REVNARD THE FOX. 4. LADY CHAPPINGH'S BALG.

5. ALDERMAN COBBLE.

d. A COMIDAL FIGHT.

JUVENILE WORKS-Continued.

The Playmate; a Pleasant Companion for Spare Hours. numerous Illustrations. Complete in One Volume, cloth, gilt, 5s.

### Harry's Ladder to Learning. Picture Books for Children.

6d. each, plain; 1s. coloured :-

HARRY'S HORN BOOK. HARRY'S PICTURE BOOK. HARRY'S COUNTRY WALKS, HARRY'S NURSERY SONGS. HABRY'S SIMPLE STORIES. HARRY'S NURSERY TALES.

Or the Six bound in one volume, 3s. 6d. cloth; or with coloured plates, 6s.

### Harry's Book of Poetry:

Short Poems for the Nursery. ELIZA GROVE. With numerous Illustrations by H. WEIR, B. POSTER, and others. Square, cloth, 3s. 6d.; or with coloured plates, 6s.

Flowers of Fable (180 Engravings), 4s.

#### Little Mary's Books for Children. Price 6d. each, profusely

Illustrated :-

PRIMER; SPELLING BOOK; READING BOOK; HISTORY OF ENGLAND; SCRIP-TURE LESSONS; FIRST BOOK OF POETRY; SECOND BOOK OF PORTRY; BABES IN THE Woon; PICTURE RIDDLES; LITTLE MARY AND HER DOLL.

Little Mary's Treasury, being Eight of the above bound in one volume, cloth, 5s.

# Little Mary's Lesson Book:

containing "Primer," " Spelling," and "Reading," in One Volume. Cloth, gilt, 2s. 6d.

Tom Thumb's Alphabet. Illustrated with Twenty-six humorous Engravings by W. M'CONNELL. Price ls.; coloured plates, 2s.

Figures of Fun; Two Parts (Coloured Plates), 1s.

### HOME BOOKS.

### Home Lesson Books.

THE HOME PRIMER, nearly 200 Cuts, cloth, 1s.

THE HOME NATURAL HISTORY, Cuts, cloth, 1s.

THE HOME GRAMMAR, Cuts, cloth, 1s. Each may be had with Coloured Plates, 2s. 6d.

Home Story Books.

THE WELL-BRED DOLL, Cuts, cloth, 1s. THE DISCONTENTED CHICKENS, Cuts, cloth, 1s.

THE HISTORY OF LITTLE JANE AND HER NEW BOOK, Cuts, cloth, 1s.

Or, with Coloured Plates, 2s. 6d.

### INDESTRUCTIBLE BOOKS.

#### Bertie's Indestructible Books. Printed on Calico, 6d, each,

1. HORN BOOK. 2. WORD BOOK.

4. WOODSIDE. 5. WILD BEASTS.

3. FARM YARD. 6. BIED BOOK.

7. NURSERY DITTIES.

Bertie's Treasury; being six of the above bound in One Volume. 3s, 6d, cloth.

### Indestructible Pleasure Books.

Price 1s. each, coloured.

1. MOTHER HUBBARD.

2. BO-PEEP.

3, COCK ROBIN.

4. CAT AND MOUSE.

5. OLD WOMAN AND HER PIG.

Digitated by Congle

6. MOTHER GOOSE.

## MINIATURE CLASSICS.

A Choice Collection of Standard Works, elegantly printed, illustrated with Frontispieces, and published at extremely low prices, with a view to extensive circulation. The binding is executed in a superior manner, and very tastefully transmented.

Any work may be purchased separately. The prices per volume are-

trenamented cloth, gilt edges . . Prettily bound in silk . . . . Very handseine in merceeti.

Those to which a stat is profixed, being much thicker than the others, are fid. per vol. extra-

Harrin's Faceye. Brattin'a Minarral. I hanning's Facque, Two vote. I handene's Letters on the Mind. I cheridge's Ancient Mariner, &c. Minwhor's Popper Two vols. Fliraboth; or, the Exiles of Siberia. Falamar's Shipwrock. Fenelem's Reflections. \* (grown of Anendrite. \*thems of Wit and Hamme. Homa from American Poets. \*Green from Shakaponro. Come of American Wit. \*Gerria of Heitich Pricta-Lat Spring Chamber, to Goldernith. 2nd , Fale mer to Campbell. Sed " Living Authors. Sarred. \*troldsmith's Vient of Wakefield. Goldernith's Faunge. Goldsmith's Portion! Works.

Grav's Printing! Wirks.

Quide to Immestic Happiness. Geograp's Logues to his linighters, \*Hamilton's Cottagors of Glouburnic. "Hamilton's I offers on Education. 2 v. Lamb's Tales from Shakspeare. Two Vertition. Intelia Resemble Grav.

\*Irving's Feenvannd Sketches.

Johnson's Rasselns.

Lewis's Tajes of Wonder. Mason in Soil-knowledge.

Miltem's Paradise Lost, Two Vols:

Marn's Ciclobs. Two Vols.

More's Fractical Piety. Two Vols. Firma Minstrol.

Paul and Virginia. Pure Gold from Rivers of Wisdom.

Sacred Harp. Scott's Ballade, &c.

"Scott's Lady of the Lake.

Scott's Inv of the Inst Minstrel:

Scott's Marmion.

"Sout's Rokeby,
"Shakspeare's Works, Eight Vols.

"Thomson's Sonsons. Talbut's Reflections and Essays.

Waiton's Angler. Two Vols. Warwick's Space Minutes. Young's Night Thoughts. Two Vols.

An there are neveral interior imitations of this popular series, it is necessary, in ordering, to specify-"tilt's Epition."

The whole Series may be had in a Clase representing two handsome Quarto Volumes, lettered " Landas Lankary of Pritish Chassics," which, when shut, is secured by a patent spring lock, for £5 5s., forming a very useful and acceptable

BIRTHDAY AND WEDDING PRESENT,

# DRAWING BOOKS.

### J. D. HARDING.

Early Drawing Book: Ele-Six Numbers, mentary Leasons. is, 6d.; or in cloth, 10s, 6d.

Drawing Book for 1847. Six Nos. 1s. 6d ; or cloth, 10s. 6d.

### SAMUEL PROUT, F.S.A.

Prout's Microcosm; or, Ar-Many Hundred tist's fiketch-book. Groups of Figures, Boats, &c. Imperial 4to, 24s, neatly bound.

Elementary Drawing Book of Landscapes, Buildings, &c. Numbers, 1s. 6d.; cloth, 10s. 6d.

### MONS, JULIEN.

Studies of Heads: by Mons. Juiling Professor of Drawing in the Military School of Paris, Lithographed by T. Pataland, Six Numbers, 2s. each; or cloth, 14a,

The Human Figure: A Series of Progressive Studies, by Mone. JULIEN. With Instructions. Six Nos. 2s, each; or cloth, 14s.

### GEORGE CHILDS.

Drawing Book of Objects: Nearly 500 Subjects for young Pupils and Drawing-classes in Schools. Six Numbers, Is.; cloth, 7s. 6d.

Little Sketch Book: Easy Studies in Landscapes, Figures, &c. Improved Edition, Fourteen Nos, 6d.; or 2 vols, cloth, 4s, each,

English Landscape Scenery: sketches from Nature for finished Six Numbers, 1s, each; Copies, cloth, 7s, 6d.

Drawing Book of Figures: Sketches from Life at Home and Several hundred Figures. Six Nos. 1s.; or bound, 7s. 6d.

### DRAWING COPY BOOKS.

A New Method of Teaching brawing by means of Pencilled Copies, in progressive lessons. Twelve Nos., 6d. each.

"It is not too much to say, that if this method were universally adopted in our schools, it would be attended with complete success."

ANDREWS'S ART OF FLOWER-PAINTING, Coloured Plates, Six Nos. 2s. 6d.; cloth, 16s,

BARBARD'S (GEORGE) DRAWING BOOK OF TREES. Six Nos. 1s.; cloth, 7s. 6d.
BARBARD'S STUDIES OF ARIMALS. Six Nos. 2s.; coloured, 5s.
COOPER'S (T. S.) DRAWING BOOK OF ARIMALS. Eight Nos. 1s. each; bound, 10s. 6d.
DIRDIN'S EARY DRAWING BOOK, AND GUIDE TO SERTICHED. Six Nos. 2s. 6d.; bound, 18s,

DIRDIN & LESSONS IN WATER COLOURS. Four Nos. 4s. Diddies a Leasons in Water Colders. Four Nos. 4s.
Vorde's Lary Lessons in Laribraper. Eight Nos. 9d.; cloth, 7s. 6d.
Greenwood's Studies of Ieres. Bir Nos. 1s.; cloth, 7s. 6d.
Greenwood's Brupter of Ieres. Bir Nos. 1s.; cloth, 7s. 6d.
Greenwood's Brupter of Chart. Bir Nos. 1s.; cloth, 7s. 6d.
Haso-Book of Parcil Drawing of Self-instructor in Art. Two Plates, cloth, 1s.
Phillips's Etchings of Vamiliar Life. Three Nos. 1s. 6d.
Rawlins's Elementary Prespective. Royal 4to, sewed, 4s.
Buyglipte's Drawing Book of Hores. Bir Nos. 1s.; cloth, 7s. 6d.
Wobsley's Little Drawing Book of Landscafes, &c. Fourteen Nos. 6d.; of

2 vois, cloth, 4s, each.

# MINIATURE CLASSICS.

A Choice Collection of Standard Works, elegantly printed, illustrated with Frontispieces, and published at extremely low prices, with a view to extensive circulation. The binding is executed in a superior manner, and very tastefully ornamented.

Any work may be purchased separately. The prices per solume are-

Ornamented cloth, gilt adges , , , , 1s. 6d.
Prettrly bound in silk , , , , , , 2s. 6d.
Very handsome in morroso , , , , 3s. 6d.

Those to which a star is profixed, being much thicker than the others, are 64, per vol. extra-

Bucier's Langya. Beattie's Ministed. thanning's Feenya. Two vola, Chapoin's Letters on the Mind. fulcilitye's Amstert Mariner, &c. "I compare a Prontine Two vola Elizabeth, or, the Eatles of Sheris, Falconer's Shipwreek, Panalon's Reflections. \*trems of Americate. \*trems of Wit and Humour. Stream from American Posts, Streum fram Blatenmen. \*Game of British Packs let Series ( muner, to Goldemith, 2nd " Fate met to Campbell. Living Authors, Sect .. 4111 Barreit. \*tipliamilia View of Waleheld. Cardidamittien Canaya. Continuation Postical Works.

Gray's Populari Maples.

Guide to Lume etts. Happiness,

tricking's Louncy to the Hangliters.

"Hamilton's Cottagers of Olemburne,

 Hamilton's Letters on Education, 2 y, Lamb's Tules from Shakspears, Two Volumes.

Lamb's Resumend Gray, \*Irving's Pessynand Shatches,

Johnson,'s Russelus. Lewis's Tules of Wonder.

Masm im bed knowledge,

Million's Papadise Lost, Two Vols, More's Calabia, Two Vols,

More a Practical Party. Two Vols,

•Prous Minstrel. Paul and Virginia.

Pure Gold from Rivers of Wisdom, Sucred Hurp.

Bentt's Bullads, &c., \*Brottes Lacks,

most's lay of the last Minetel,

\* Bentt a Murming,

\*Eint's Bikely, \*Eight Vols, Eight Vols,

"Thomson a Seasons,

Tuthot's Reflections and Essays, Walton's Angles. Two Vols,

War wich's Spare Minutes,

Young a hight Thoughts. Two Vols.

As there are several inferior imitations of this popular series, it is necessary, in ordering, to specify -"TI-7'S EDITION."

The whole Series may be had in a Case representing two handsome Quarto Volumes, bettered "Lonnon Lannany of Battish Glassics," which, when shut, is secured by a patent spring lock, for £5 5s., forming a very useful and acceptable

BIRTHDAY AND WEDDING PRESENT.

# DRAWING BOOKS.

### J. D. HARDING.

Early Drawing Book: Elementary Lessons. Six Numbers, la. 6d.; or in cioth, 10s. 6d.

Drawing Book for 1847. Six Nos. 1s. 6d.; or cloth, 10s. 6d.

### SAMUEL PROUT, F.S.A.

Prout's Microcosm; or, Artist's Sketch-book. Many Hundred Groups of Figures, Roats, &c. Imperial 4to, 24s, neatly bound.

Elementary Drawing Book of Landscapes, Buildings, &c. Six Numbers, 1s. 6d.; cloth, 10s. 6d.

### MONS. JULIEN.

Studies of Heads: by Mons. JULIUM, Professor of Drawing in the Military School of Paris. Lithographed by T. PAIRLAND. Six Numbers, 2s. each; or cloth, 14s.

The Human Figure: A Series of Progressive Studies, by Mons. JULIEN. With Instructions. Six Nos. 2s. each; or cloth, 14s.

### GEORGE CHILDS.

Drawing Book of Objects:

Nearly 500 Subjects for young Pupils and Drawing-classes in Schools. Six Numbers, ls.; cloth, 7s. 6d.

Little Sketch Book: Easy Studies in Landscapes, Pigures, &c. Improved Edition. Fourteen Nos. 6d.; or I vois cloth, 4s. each.

English Landscape Scenery: Sketches from Nature for finished Copies. Six Numbers, 1s. each; cloth, 78, 6d.

Drawing Book of Figures: Sketches from Life at Home and Abroad. Several hundred Figures. Six Nos. 1s.; or bound, 7s. 6d.

### DRAWING COPY BOOKS.

A New Method of Teaching

Drawing by means of Pencilled Copies, in progressive lessons. Twelve Nos., 6d. each.

"It is not too much to say, that if this method were universally adopted in our schools, it would be attended with complete success."

ANDREWS ART OF FLOWER-PAINTING. Coloured Plates. Six Nos. 2s. 6d .: cloth, 16s.

BARNARD'S (GRORGE) DRAWING BOOK OF TREES. Six Nos. 1s.; cloth, 7s. 6d.

BARRAUD'S STUDIES OF ANIMALS. Six Nos. 3s.; coloured, 5s. CGOPER'S (T. S.; DRAWING BOOK OF ANIMALS. Eight Nos. 1s. each; bound, 10s. 6d.

DIED:N'S EAST DRAWING BOOK, AND GUIDE TO SKETCHING. Six Nos. 2s. 6d.; bound, 18s.

DIEDIN'S LESSONS IN WATER COLOURS. FOUR NOS. 48. FORD'S EAST LESSONS IN LANDSCAPE. Eight Nos. 9d.; cloth, 7s. 6d. GREENWOOD'S STUDIES OF TERES. Six Nos. 1s.; cloth, 7s. 6d. GRUNDY'S SHIPPING AND CRAPT. Six Nos. 1s.; cloth, 7s. 6d.

HAND-BOOK OF PENCIL DELWING; Or, Self-Instructor in Art. Two Plates, cloth, is.
PHILLIP'S ETCHINGS OF PARILLAR LIFE. Three Nos. 1s. 6d.
BAWLINS'S ELEMENTARY PRESPECTIVE. Royal 4to, sewed, 4s.
SUTCLIFFE'S DELWING BOOK OF HORSES. Six Nos. 1s.; cloth, 7s. 6d.

WORSLEY'S LITTLE DRAWING BOOK OF LANDSCAPES, &c. Fourteen Nos. 66.; or 2 vols. cloth, 4s. exen.

# BOOKS REDUCED IN PRICE.

- Roman Art. Il Vaticano: An Historical and Descriptive Account of the Charch of St. Fater, and the Vatican Museum and Galleries. By Fasson Pictorest. In Fight Volumes Iolia, containing appeares of Sine Hundred Plates. Half-bound in morocco, gift tops, Thirty Guineas.
- Authors of England: Portraits of the Principal Literary Characters, engraved in Bassa-relieve by Mr. Course; with Lives by H. F. Chamer. Royal 4to, cloth wilt, published at 31s. 60.; reduced to 10s. 6d.
- The Georgian Era: Modern British Biography since the reign of the Anne. Handsomely bound in cloth. Fublished at 34s. 5d.; reduced to 14s.
- The Noble Science Fox-hunting, By F. P. Delme Raduliffe, Fag., Muster of the Hertfordshire Hounds. Royal 8vo. Originally published at 28a.; reduced to 12s.
- Museum of Painting and Sculpture: A Collection of the principal Pletures, Statues, and Bas-reliefs in the Public and Frivate Onliceics of Furape. This work, which contains Engravings of all the chief works in the Union, German, Dutch, French, and English Schools, includes Tweeve Hommen Places, and is an indispensable rade-movem to the Artist or Collector. In 17 handsome vols, small Svo, neatly bound, with girt tops. It ighnally published at £17 17s.; reduced to £1 14s. 6d.
- Travels in S. E. Asia, Malaya, Burmah, and Hindustan.
  By the Rev. H. Marcotta. 2 year, say, published at 10s.; reduced to Ss.
- Puckle's Club; or, a Grey Cap for a Green Head. Many first-rate wood Engravings, cloth. Published at 7s. 6d.; reduced to 2s. 6d.
- Martin's Illustrations of the Bible; consisting of Twenty large and magnificent Plates, designed and engraved by John Martin, Author of "Relshazzar's Fenst," &c. In a large follo volume, cloth. Originally published at \$10 10s.; reduced to \$2 2s.

# INDEX.

	,
PAGE	PAGE
Adalbert's (Prince) Travels 11	Cruikshank's (Geo.) Works 17
Acting Charades 13	Fairy Library. 26
Andrews' Flower Painting 29	Dale's Poems
Anniversary, The	De Stael's (Mag.) Life and Times . 9
Architectural Works	Dictionaries 16
Arnold's (Edwin) Poems 12	Domestic Architecture 9
Art of Painting Restored 7	Hints
Authors of England 30	Drawing Books
Authors of England	Edgar's Biography for Boys   10
Bertie's Indestructible Books 27	Edgar's Biography for Boys 10
Bible Gallery	Boynood of Great Men 10
Women of the	- History for Boys 23
Bingley's Tales 26	Boy Princes 23
Biographical Works	Emma de Lissau
Bloxam's Gothic Architecture 9	Etiquette for the Ladies 20
Blunt's Beauty of the Heavens	Gentlemen 20
	Trans Life by Gilbhair
Bond's History of England 20 Book of Beauty	English Composition
the Months	Euclid, Symbolical
	Floral Fancies
	Postprinte of Postprinte Man
	Footprints of ramous Men 10
	Fountain of Ligina Waters
	Fountain of Living Waters 19 Fox-hunting, Noble Science of 30
Treasury	Franch Demostic Cocheme
Brandon's Architectural Works .	French Domestic Cookery 19 Dictionary, Miniature 16
Brandon's Architectural Works Bunyan's Pilgrim's Progress Burnet on Painting	Funny Pooks
Burnet on Painting	Funny Books
Life of Turner 3	Gautier's Constantingula of To dev.
Butterfly (Bachelor) 17	Georgian Era (The)
	Glossary of Architecture 8
Byron Gallery	Goldsmith's Traveller Illustrated . 1
Canadian Life Skatches of	Works 20
lanadian Life, Sketches of 19 lapern's Poems	Graces, Gallery of the 4
Chapman's Elements of Art	Grimm's Household Stories 24
Cheever's Whaleman's Adventures. 25	Guizot's Young Student
Childs' Drawing Books 29	
— First Lesson Book 20	
Christian Graces in Olden Time .	
Christian Melville 13	Harding's Drawing Books 7 20
Christmas with the Poets	Harry's Ladder to Learning
Comic Works	Harry's Ladder to Learning 27
- Latin Grammar	Book of Poetry
- Almanack	Heroes of Asgard
Comical Creatures from Wurtem-	Wanter of Chalana
burg	Hervey's Meditations
People 20	Home Lesson Books
burg - 26  — People - 26  — Story Books - 26  oke's Rome - 3  per's (T. S.) Animals - 29	Heroines of Shakspeare
ooke's Rome 4	Hood's Epping Hunt
per's (T. S.) Animals 29	- Eugene Aram 14
:t Album	Humphreys' British Coins 3
wper's Poems 5, 20, 28	Introd. to Gothic Architecture 8
wher Bon-Bon for Christmas 13	Johnson & Lives of the Locts
sland's Memorable Women 10	

### Inter - Continued,

PAISE	1 PACE
Julian's Human Figure 29	Fortry of the Sentiments 21
Invanila Strike 22	of the Year
Kanpauka Tha, , , , , , , 2	
Karistania Travala, 11	Principle a fairely
King a Interest fables 19	Bufferson Curtinates
	March & [ Card M Transast March NY
Language of Flowers	livy Hunters 22
Lauren and Lyen	Try manage , , 22
Lastures on the frent Exhibition , 15	" Venetiz Veryngenier 22 Frank Frank . 22
	" Frynch Parling , , 22
	- Bush-Bergs 22
12 Marie a contract to the con	- Yeneng Yagara , 23
	Removement and his Works , , , 2
1. In cel Courses	1 SETTING THE KIRL
Lattie Many a Frence	Buymes and Beneadainges 7
. Tinaming , , , , 27	Blinn, Islantentary by H. Freday
- I promote topic , , , hi	Recalin's 11, Wangfers Commission , 12
- Sugalini Steek 24	Reddison Consen 15
Lemman Kine Mars	1 territorities by Destate , , , , , , S
Langleluin & France 2, 13	1 Remark transact , , , , , , , , 13
- 11 y perient 2	Seinthisin William
Or den Legend 2, 12	Seedle Ventus
Origin Layand 2, 13	Segment's New Readings 18
Since of Hismatha, , 12	Stratume
Mangay a (Charies, Egeria 12	Streetween Harenberg
Tren Laries , 12	Strateges Instrume Instrumery , it
Majerim a Travels in Hindusten . W.	- Knilway Kemi Feerle , , 26
Manuals of Instruction, &c 21	Silhey liny
and the state of t	Smithe 'Alex.) Penne, 12
Munney a (1), Italia Christiana) 12	Senteta in the Wat 12
Leady rivite Location , , , 12	- I Albert, Ment Eines , , 11
Maylaw's treatest Plagra 13	(Zmatent nepla 11
Acting Character 18	a - Thereseption tadpels 14
Magic of Industry !!	Semitary's late of Swarm , , , , th
and Cariffring Advantures , 11	Spring's Glory of Cheset 19
· Tredition 15	Stant's Antiquities of Athens 5
Presented tray Philosophics 2%	Talk of a Tight, , , , , , , 18
. Windste id Schains, , 23	Tuylar & (t), H. May You take to , 25
Men of the Time	Taylor's Yearly Islandays 20
Min and Charlis 24	Thereton & Conserve 1, 21, 22.
Miller's I'l., Poems for Children . 26	Timber Corresponded Landon, , , 18
Pictures of Country	" Triby: Sed Corners by Known 18
tate	Curiosities of History , , 12
Millenia Prostral Winks 6	= = Propriest Brents 18
= Ichlieger Hustrated 1	Tem Thumbia Algerated 2:
Miniatura Chessiva , , , , 28	Tanhull's Truonis in Paris 11
Mirlam and Bearing	Turner and his Works 2
Museum of Painting and Sculpture 20	
	Vaturant (1) Vertiger of the Landon
bridge a real first transfer of the second	Walteria Anglas
Crylinia & Adontitures 17	
Indiantes Adventures	Water trus to treatment
Painting firaming, &c., works on	I secure a contract to the second sec
Pantyur Mayle	I me a constitution of the contract of the con
Panerumia View of Palestins 20	
Failatt on Class Making 4	Whist, Game of
faliation tring Making 4	
Pantamarema (That) 26	Winner of the tible 4
Fastamarema (Tha)	Wenders of Travel , 11
Eleginiete (1166) , , , , , , , , //	Year Breck of Facts
Postry of Flowers 21	Young Lady's Oracle 14

### INDEX-Continued.

PAGE	PAGE
Julien's Human Figure 29	Poetry of the Sentiments 21
Juvenile Books 22	the Year
Keepaske (The)	Frout a (Bath.) Microcoam, &cc
Kendalis Travels 11	Puckle's Club 30
King's Interest Tables 19	Kattaelles Carteura
Landscape Painters of England . 3	Reid's (Capt. M.) Desert Home
Language of Flowers 5	- Boy Hunters 22
Laurel and Lyre 21	- Young Voyagenrs 22
Lectures on the Great Exhibition . 15	Western Value and Valley
- Cold	Bush-Boys
Le Keux's Cumbridge 6	Young Yagers 22
Life's Lessons 19	Rembrandt and his Works 2
Life of Christ	Reynard the Fox
Little Mary's Books	
Treasury	Rhymes and Roundelayes 2 Rhine, Illustrated by B. Poster 1
Trensury	
Boy's Own Book 24	Ritchie's (L.) Wearyfoot Common . 13
	Robinson Crusoe
and the second s	Romance of Nature
	Round Games
Golden Legend	Scott's Poems 6, 21, 27 Scymour's New Readings 18
Prose Works 13	Sected Forms
	saymour s New Readings 18
	Shadows
	Shakspeare Heroines 3
Town Lyrics . 12	Sharpe's Diamond Dictionary 16
Malcolm's Travels in Hindustan . 30	Italiway Road Book 20
Manuals of Instruction, &c 21	Sidney Grey
Martin's (John) Bible 30	Smith's (Alex.) Poems 12
Massey's (O.) Sabe Christabel 12	- Sonnets on the War 12
Craigerook Castle 12	(Albert) Mont Blane 11
Mayhew's Greatest Plague 13	Christopher Tadpole 14
Acting Charades 13 Magic of Industry 14	Christopher Tadpole 14
Magic of Industry 14	Bouthey's Life of Nelson 10
- Sandboys' Adventures . 14	Spring's Glory of Christ 19
Touthache 15	Stuart's Antiquities of Athens 9
Pensant Boy Philosopher 23	Tale of a Tiger
Wonders of Science 23	Taylor s (C. B.) May You Like It . 25
Men of the Time	Taylor's Young Islanders 26
Mia and Chartie 24	Thomson's Seasons 5, 21, 28,
Miller's (T.) Poems for Children . 26	Timbs: Curiosities of London 18
Life	Things Not Generally Known 18
Life 5	Curiosities of History 18
Million a Poetical works	Popular Errors 18
L'Allegro Illustrated 1	Tom Thumb's Alphabet 27
Miniature Classics 28	Tachudi's Travels in Peru 11
Mirlam and Rosette 25	Turner and his Works 2
Museum of Painting and Sculpture 30	Vaticano (li) 30
Musgrave's Ramble in Normandy . 11	Vestiges of Old London
Ogleby's Adventures 17	Walton's Angler 6, 27
Oldbuck's Adventures	Waverley Gallery
Painting, Drawing, &c., Works on 7	Webster's Quarto Dictionary 16
Parlgur Maylo 25	Octavo Dictionary 16
Panoramie View of Palestine 20	Smaller Dictionaries 16
Pearls of the East 6	Whist, Game of 14
Pellatt on Glass Making 4	Winkles's Untheornis
Pellatt on Glass Making 4 Pentamerone (The) 26 Pictorial Bible History	Women of the Bible 4
Pleterial Hible History 26	Wonders of Travel 11
Playmate (The) 27	Wonders of Travel
Poetry of Flowers 21	Young Lady's Oracle 14



..... Z 4 isis

Diament of Google

